Military Intelligence
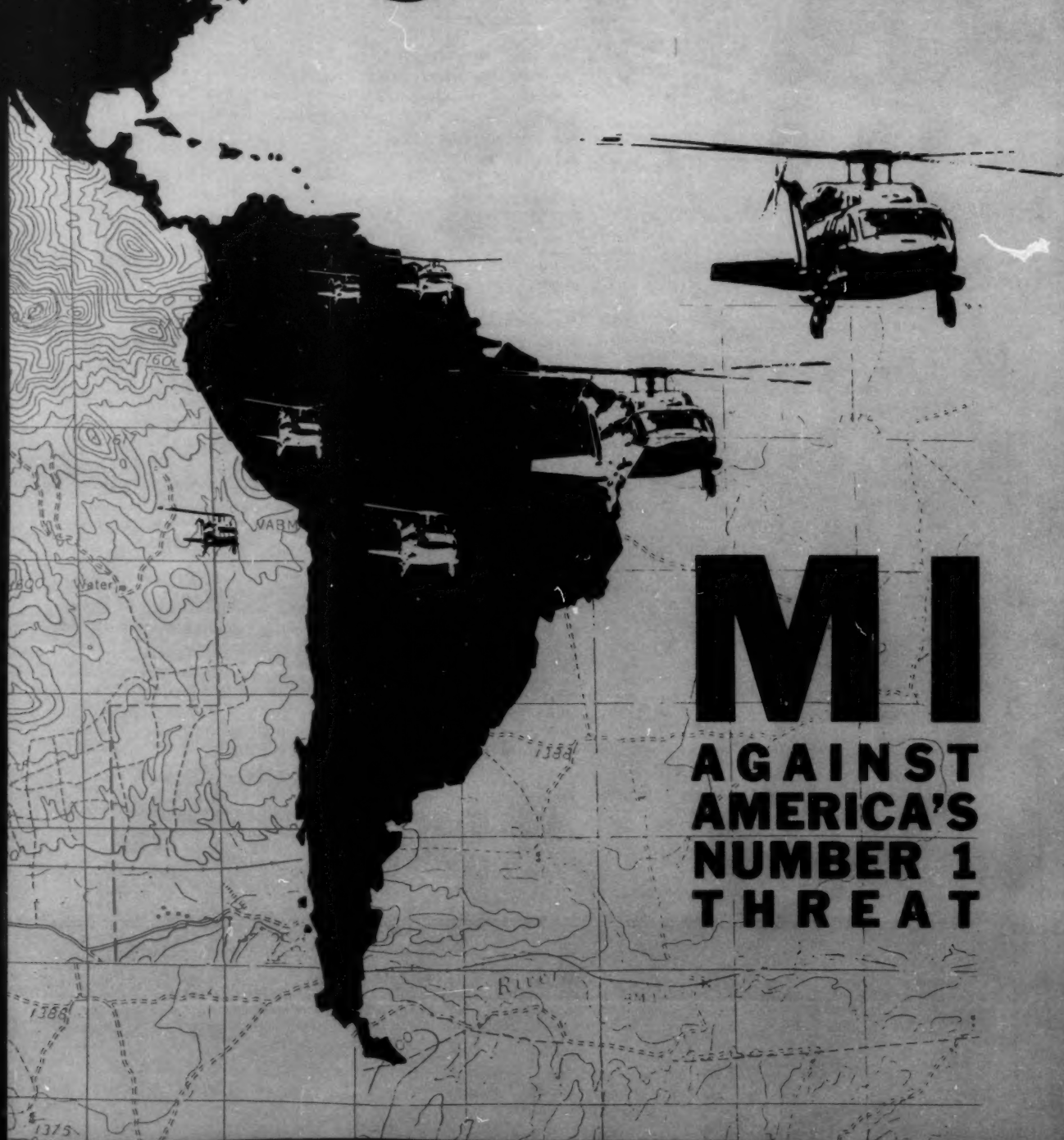
MI
AGAINST AMERICA'S NUMBER 1 THREAT

By Order of the Secretary of the Army:

CARL E. VUONO
General, United States Army
Chief of Staff

Official:

R. L. DILWORTH
Brigadier General, United States Army
The Adjutant General

Features

Military Intelligence
From the Home of Intelligence

Staff

from the Commander

Maj. Gen. Julius Parker, Jr.

As leaders in the Training and Doctrine Command, we are often faced with difficult decisions without the benefit of a thorough analysis of hard data and identification of all costs-to-benefits. This is an acute problem, occurring most frequently in the force modernization world where we are making decisions based upon future concepts, doctrine, threats and force structures often as far out as 15 years.

Fortunately, tools are available to assist us in finding the right answers to difficult problems. These tools are known as simulations and models.

We at the Intelligence Center and School use simulations and models to imitate performance and functions of actual (physical) or postulated systems, elements or echelons coupled with their operating environment — threat, weather and terrain. While simulations and models are not a panacea, they are the best we have other than actual conflict or multiple iterations of design, development and field testing. Simulations and models allow us to run a concept, system, force structure or doctrine through its paces to find efficiencies or deficiencies before we commit ourselves.

Of course, these simulations and models are not perfect. They will not give us, with the clear light of perfect logic, the certainty we want. They will not free us entirely from the bondage of the last war as we prepare for the next. But they will allow us to lessen some of the shadows of uncertainty that extend over today's battlefield and darken the battlefield of the future.

Therefore, we train many of our soldiers with these simulators and models because they are realistic and because the tactical commanders in the field need the real equipment in their units to accomplish their mission. At Fort Devens, for example, the soldiers use the SIGINT/Electronic Equipment Operator Simulator (SEOS). SEOS is a fine example of what simulators and models can do. It lets the soldiers train in the classroom by simulating, very realistically, airborne and ground-based SIGINT systems. We train more students with fewer instructors using SEOS, and we save money doing so — money we are able to use wisely on other equipment.

So why am I telling your about all this? It's because I have just initiated a master simulator and model concept here at USAICS. This concept establishes a single Intelligence and Electronic Warfare (IEW) executive model that fits in with and supports all the other Army IEW models. It consists of two primary nodes or institutional trainers. First is the IEW node in the Army Tactical Command and Control System, and the second is the IEW module for the family of simulations within the Army trainer programs (Battle Command Training Program, Corps Battle Simulation, Division Training Simulation, Battalion/Brigade Simulations).

The G2 workstation is our number one institutional trainer at present. This simulator replicates a division G2's intelligence functions under wartime conditions and is able to act effectively as an MI/CEWI battalion headquarters in the field. Therefore, it facilitates the training of lieutenants and captains to execute the battlefield intelligence mission and it trains them inexpensively. Eventually, the G2 workstation will evolve into the All-Source Analysis System, and the IEW module of the Battle Command Training Program will evolve into the Intelligence and Electronic Warfare Training Evaluation Complex (IEWTEC), formerly the Intelligence Training Evaluation System.

IEWTEC complements the present G2 workstation because it evaluates MI battalion capabilities in part by simulating the threat the battalion would face and the terrain and weather in which it would operate. IEWTEC challenges the battalion to show its warrior prowess; it challenges the battalion to demonstrate that its people have the skills needed to conduct war, that they use the right procedures and that their equipment is capable of supporting them.

By 1989 we will also use our simulators and models to help us prepare the next Mission Area Analysis (MAA). The MAA is itself a tool to help us prepare our Army — it specifies our needs now and the needs we are likely to have and it ranks them.

I hope that by 1995 our simulation and model systems are working tools, tools in place. When that happens, we will be able to join in the Digital Data Network, other DOD, Department of Energy and DA simulation and modeling elements. We won't be in competition with them but will be a part of that garment of protection, woven in electronically, for the defense of our people.

In summary, in the next few years we must ensure that our simulation and modeling efforts represent reality for our soldiers and produce results for our leaders. If we use these devices well, they will help us on many fronts. Our soldiers will get real-world, robust training both here and with their units. We at USAICS will henceforth be able to defend our force modernization positions with hard analysis. And our leaders in combat development and training and doctrine arenas will have the very best information available upon which to base their decisions. *Toujours en avant* . . . . **Always Out Front!**

from the CSM

CSM Robert H. Retter

Training, of course, is the principal mission here at the Intelligence Center and School, inclusive of all four of our training sites. Recent efforts have involved USAICS noncommissioned officers in an effort to explore ways we can positively impact training here at the school in the near term. We have been looking for ideas from our NCOs which can improve training without spending a great deal of money or instituting major new programs. It was my hope that our planned Military Intelligence CSM/G2 SGM conference would involve NCOs from the field in this effort as well as deal with enlisted training issues throughout Military Intelligence. But, as you may already be aware, the conference had to be cancelled to comply with DOD budget reduction directives. All of these efforts were in part supporting a larger Training and Doctrine Command initiative to explore and improve the "linkage" between all training events in a soldier's career. We are looking at the training gaps or overlaps that may occur between a soldier's attendance at training at USAICS. We are trying to ensure that there are no gaps or overlaps between what is taught here and training in the field. The effort extends to looking at consistency between what NCOs are taught about officers and what officers are taught about us.

We hope to improve the content of training. Of greater significance though, will be a clear statement of just what is expected in terms of individual soldier effort, what responsibilities fall on the unit and what is expected of the Intelligence Center and School in terms of resident programs and exportable training products. We hope to be MOS specific. Unit trainers and the soldier will know what training was provided in Advanced Individual Training and what the soldier should accomplish and learn between AIT, BNCOC and ANCOC. This is a major undertaking but a necessary one. I think it is important that we not unnecessarily repeat well-learned training. It is important that we have a progressive, challenging, MOS-specific training program which is well focused throughout a soldier's career. We anticipate rescheduling the cancelled training conference as soon as funding levels permit. I want the fullest possible participation of the Military Intelligence NCO leadership as we attempt this project.

A self-evident truth has already emerged. The individual soldier bears the greatest responsibility in training. The individual soldier must make the effort to succeed either at the mission or at training. He or she must pass the Common Task Test or the Skill Qualification Test. The individual soldier must make the effort to succeed academically in both military or civilian education. The NCO Corps has an obligation to provide much of the training. We have an equally important collective responsibility to ensure that training requirements are well defined with specific short- and long-range objectives.

I am not suggesting that MI soldiers are not now well trained nor that current training is inadequate. By any measure, it is clear that the opposite is true. But, there is room for improvement. The greatest room for improvement is in the area of ensuring that [illegible] understand and agree on the objectives a[illegible] [illegible] understands [illegible] expected at each [illegible] [illegible] in the MI-unique a[illegible] this is a worthy [illegible] in this year of A[illegible]
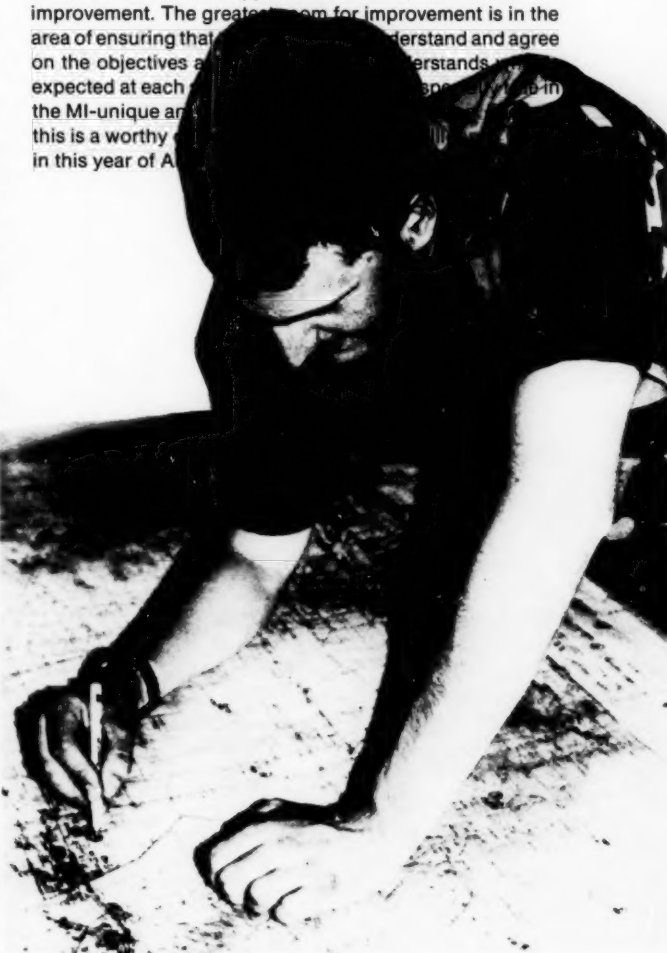
Behind the Lines

The United States is involved in a number of conflicts throughout the world. This involvement can take the form of supplying humanitarian aid to an impoverished Third World nation involved in a political/military struggle, being part of a U.N. peacekeeping force, or participating in diplomatic negotiations concerning Southern Africa. Recent military presence in Honduras, economic sanctions in Panama and retaliatory action in the Persian Gulf cite but a few methods of involvement the U.S. government has elected to pursue.

The threat comes in many shapes and forms. As intelligence professionals, we must monitor the international drug trafficking problem, especially so close to home: to our immediate south and in Central America. The Iran-Iraq conflict continues to demand a close watch. The Middle East situation remains volatile. The intelligence community must closely monitor the impending Soviet withdrawal of troops from Afghanistan, as well as the recent labor unrest in Poland.

Potential U.S. involvement in a future conflict runs the gamut of low-intensity, counterinsurgency in the jungles of a not-too-distant nation to full-scale, high-intensity conflict. Technology transfer is making it possible for more nations to purchase and build nuclear weapons, to which an article in this issue alludes. The 1988 *Soviet Military Power* concludes that the Soviets appear to be gearing up for a more sophisticated level of competition with the West.

In this issue, many of the above mentioned areas are covered in depth. Capt. Mary S. Brennan sheds some insight on the 1986 combined cocaine interdiction effort in Bolivia, "Operation Blast Furnace." Soviet minorities in the Soviet Armed Forces, the history of the Soviet invasion of Afghanistan and Sino-American security ties are but a few of the topics covered.

It is our charter as intelligence professionals to monitor global conflicts and scenarios. Our analyses of events must take into account economical, political and social causes and effects, as well as military actions. Only by understanding and applying all correlating data can we confidently posit assessments upon which crucial and binding decisions will be made.

William A. Russell

Editor

ATTENTION READERS

Because of budgetary constraints, the days of as many free copies of the Military Intelligence Professional Bulletin as you want are over. Free copy distribution has had to be cut to one copy per unit. This means that many MI personnel will not have access to the Bulletin.

There is, however, a way around this situation. Using unit funds, you can subscribe to the Bulletin for as many copies as you feel you need. And, you will continue to receive your free unit copy. See the inside of the front cover for information on how to subscribe.

This is the best way to ensure that your MI personnel will always have access to the features, training information and reviews that make up the Bulletin.

feedback...

Dear Editor:

The largest and most complicated part of being an interrogator is that you must also be a translator. By its very nature, being a translator is a highly perishable job skill. It is the double-edged sword of military occupation specialty (MOS) qualifications. Before 1978, the jobs of interrogator and translator were separate MOSs.

Annually, each interrogator must requalify in his language skills. The level of those skills depends upon his unit's mission. Once the interrogator requalifies, it is up to his unit commander to determine what his duties will be. For the reserve interrogator, language qualification and maintenance are almost entirely his responsibility.

Interrogator/interpreter is not one of the intelligence MOSs which are usable in a peacetime Army. The Defense Language Institute provides the linguists, both active and reserve, a solid base upon which to build. However, many good interrogators are losing their language skills on active duty. In the reserves, degeneration of linguistic skills occurs at an alarming rate. This is due, in part, to the nature of the training system. Active duty personnel train daily, while reserve personnel have only 38 to 50 annual training days.

Limited training time can retard the growth of even the best linguist. In order to maintain a language skill in the reserves, the linguist must devote his off-duty time to language study. Since most reservists also have full-time civilian jobs, off-duty study can become difficult.

A recent article in the **Army Times** reported that the Reserve Components could not maintain language skills. The author felt that language-related MOSs in the reserves should be eliminated. If the reserves were the only group that could not maintain language skills, then I would agree with the author. But, language proficiency is a universal problem. No one on active duty or in the reserves has been able to determine how to properly maintain linguistic proficiency.

We are quickly losing the Vietnam-trained interrogator/translators from the Army. My reserve unit was, at one time, almost entirely made up of Vietnam veterans. With the inevitable loss of the remaining few, my unit will have no combat intelligence experience to draw upon.

The reserve interrogator/translator can do the job. It will be extremely difficult unless a linguistic skills maintenance program can be implemented and practiced.

SSgt. Paul B. King
307th Military Intelligence Company
Pasadena, Calif.

Dear Editor:

I would like to congratulate Capt. Peter Adelman for his interpretation of American military history in terms of the doctrine of AirLand Battle (**Military Intelligence**, January 1988). All too often the professional soldier overlooks the past when attempting to learn about current doctrine. The battles of our history should be reexamined in terms of contemporary doctrine, tactics and equipment in order to provide us with familiar examples of those concepts in action.

Unfortunately, I believe that Adelman misinterpreted at least one of his examples from the Shenandoah campaign — Brandy Station. If one looks more closely, I believe that you will find that Brandy Station is generally viewed as a Union victory — at least in psychological terms. Most historians cite this engagement as the first point at which Union cavalry gained equality with the forces of J.E.B. Stuart and the start of the campaigns that ended Confederate cavalry as a significant force in the Eastern theater. In short, three small cavalry divisions under Brig. Gen. Alfred Pleasonton crossed the Rappahannock River at two points, moved up and engaged one of Stuart's divisions in its camp and held the field until the arrival of strong Confederate infantry forces that afternoon. Brandy Station is one of the few traditional cavalry fights in the Civil War in which saber fought saber. Although forced to leave the field, the blue troopers felt that they had proved themselves. In the Gettysburg campaign that followed, this sense of superiority was born up by action in a series of cavalry fights ending on July 3rd east of the town of Gettysburg. Stuart's force never again gained the initiative.

Brandy Station does indeed show some of the principles of AirLand Battle — deep attacks, initiative, synchronization — as well as some of the traditional concepts of mass, surprise and C^3I. In some cases, the examples are negative in nature, but still present. These examples, often ignored since our high school history classes, can bring to life some rather dry academic points. Service schools should consider including them when possible. (The Engineer School includes TEWTs in the Shenandoah Valley using brigade-sized forces. It wouldn't be too difficult to include the history of that terrain in the program. Our local Army Reserve school has included walks at Saratoga in its program of instruction.)

Good examples of campaigns from which we can base use of contemporary doctrine abound in many areas of the country: Jackson's campaign in the same valley leading up to Second Bull Run; Lee and Jackson at Chancellorsville; Grant at Vicksburg; Sherman and Johnston prior to Atlanta; Washington in New Jersey in 1777 and 1778; even Benedict Arnold in northern and central New York in 1776 and 1777.

Adelman has suggested an excellent tool which can be used by individuals or as the basis for group study. He also reminds us of our rich history and our obligation to preserve it.

Maj. James E. Odell
42nd Infantry Division, NYARNG
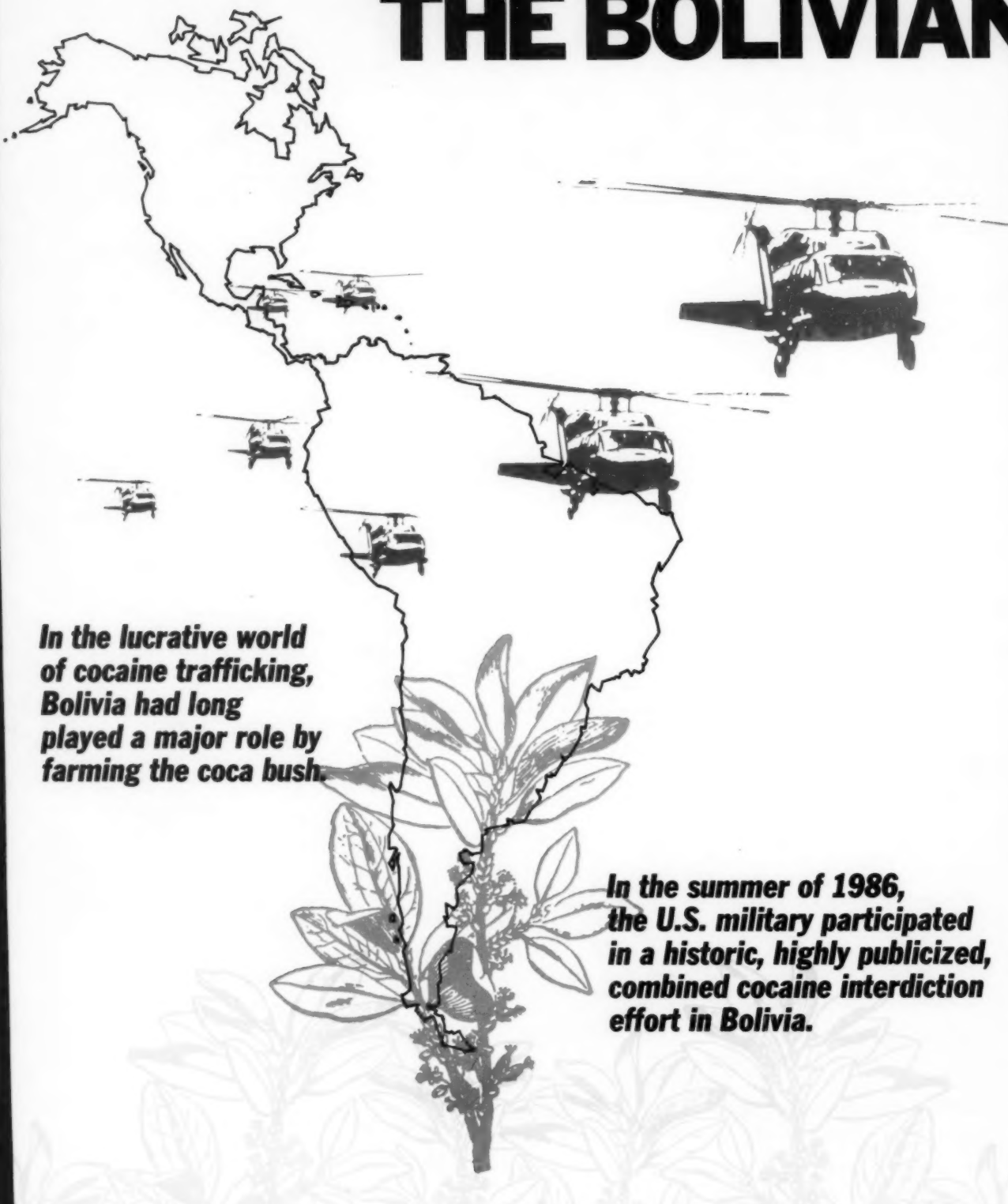
Dear Editor:

Since Dr. Turkoly-Joczik took the trouble to point out in his article "Eisenhower's Laotian Venture" (**Military Intelligence**, October 1987), that Kha is a pejorative term for the people more properly known as the Lao Theung, he should have mentioned that Meo is no less a derogatory term used by foreigners to refer to the Hmong people of Laos. Meo is probably a corruption of the Chinese Miao, meaning "tribesman," and by extension, uncivilized.

It is a sad postscript to "Eisenhower's Laotian Venture," that we abandoned these gallant people to a policy of extermination and genocide by the Communist government that took over when we packed up and left. No one knows how many Hmong have been murdered, but 100,000 is not an exaggerated estimate. That is the equivalent of about 24% of the population of the United States being wiped out under similar circumstances.

Chief Master Sgt. Robert T. Dearman
U. S. Air Force
Defense Language Institute

5

THE BOLIVIAN

In the lucrative world of cocaine trafficking, Bolivia had long played a major role by farming the coca bush.

In the summer of 1986, the U.S. military participated in a historic, highly publicized, combined cocaine interdiction effort in Bolivia.

CONNECTION

by Capt. Mary S. Brennan

"Operation Blast Furnace" was a precedent-setting use of U.S. military forces against the drug trade abroad. The campaign lasted four months, starting in mid-July. Although many organizations worked together at the strategic and theater levels to support "Blast Furnace," there were three primary organizations at the tactical field operational level:

• The UMOPAR (*Unidad Movil de Operaciones Para Aereas Rurales*), also known as the "Leopards," the Bolivian mobile rural police force.

• The U.S. Drug Enforcement Administration (DEA).

• Task Force "Janus," members of the Army component of the U.S. Southern Command, based in Panama.

Background

Bolivia produces an estimated one third of the world's raw coca leaf. The leaf is crushed in vats of kerosene to produce a sticky gray substance called coca paste.[1] This paste is often moved by mule or small aircraft to Colombia's jungle for refinement into nearly pure cocaine. Colombia holds the dubious honor of refining up to 90 percent of the world's cocaine supply. In recent years, Bolivian narcotics traffickers chose to reap some of the middleman profits by building cocaine hydrochloride processing laboratories in the *Beni*, the Amazon Basin region of their country. Bolivian President Victor Paz Estenssoro responded to the draining of his country's economy, the growing influence of the traffickers and threats from the United States to cutback economic aid[2] by asking for help to transport his "Leopards" in operations against these lab sites.

The DEA received Paz Estenssoro's request for action through the State Department.[3] The DEA planned for a low-key campaign — just a few U.S. Army helicopters flying host-country police to strike a heavy, first blow against the cocaine processors. The request went through bureaucratic levels down to the U.S. Southern Command in Panama. To meet the requirements, the Army planned to supply six helicopters, a platoon of pilots and maintenance personnel and

fuel handling equipment. Due to an advanced news leak to the U.S. media and the size of the military contingent, operations security (OPSEC) died before the operation even began. *Washington Post* photos of the arrival of the U.S. military support element in Santa Cruz, Bolivia, squelched DEA's hope for a discreet operation.

Concept

The forward military element arrived in La Paz on July 13, where logistical problems forced it to remain for four days, rather than proceed immediately to the field. The main body of the military contingent flew into Santa Cruz on July 16. Aboard the C5A were six partially disassembled Black Hawk helicopters. Within two days, the Black Hawks were assembled and flown to the rear operations base at the town of Trinidad in the *Beni* region. At the same time, the forward operating base (FOB) was readied at a ranch approximately 120 miles north of Trinidad. On July 17, the forward element deployed from La Paz to the FOB. The first UMOPAR strike was launched on the following day. In a practice common throughout the entire four-month operation, the Black Hawks ferrying the UMOPAR landed a mile from the suspected lab sites. The Bolivians then followed a DEA agent to the area of the lab. *No U.S. personnel were involved in the actual strikes.*

A typical lab site is not set in the open but just inside a section of triple canopy jungle. It usually consists of 12 or more wood-frame small buildings with canvas roofs, one or more hand-dug wells, a cook house, a beehive-shaped, mud oven and at least one massive diesel generator. The camp is electrified since work often takes place in the cooler hours of the night. Living conditions are similar to that of a rough summer camp.

Culture Shock

All parties suffered a culture shock in this first instance of conventional U.S. military support to a DEA-sponsored overseas operation. The culture shock to DEA agents began when they realized the size of the military contingent. Accustomed to working on a small

budget with limited equipment support, they took some time to adjust to the notion that the military wanted to protect expensive helicopters and support personnel. In addition to pilots, crews and support personnel, the Army had infantry support for perimeter defense and intelligence for tactical early warning. Communicators and medics completed the list of approximately 65 soldiers at the FOB. At the rear base in Trinidad, a similarly structured force of approximately 100 soldiers also had food handlers and public affairs officials to handle the media.

OPSEC, as practiced by the DEA, took on the aspects of a police operation. They initially had a strict limit on the number of persons who knew the next day's targets. This excluded the UMOPAR. Obviously, the exclusion upset the UMOPAR whose response was to give their informant tips directly to the military intelligence team, bypassing the DEA. The DEA agent in charge soon realized his mistake and the UMOPAR officers were included in operation planning. Ultimately, it was a

> "This need to consider the political ramifications of tactical maneuvers was new to most of the U. S. field participants. . ."

Bolivian mission politically and tactically. Paz Estenssoro put his government on the line by requesting help from the United States. To deny internal critics the ammunition to accuse him of selling out to the "gringos," there could be no question of leadership on "Operation Blast Furnace." This need to consider the political ramifications of tactical maneuvers was new to most of the U.S. field participants and provided a valuable lesson on relations with host countries.

Although the size of Task Force "Janus"[4] posed diplomatic problems for Bolivia and removed the initial element of surprise in the field, it had definite benefits to offer. These included perimeter security, sophisticated logistics support (by host-country standards), transportation, advanced communications, concepts of intelligence, medical support and tactical advice. The transfer of field know-how even extended to

setting up and surviving in an area devoid of any support structures.

The U.S. military was expected to serve mainly as an air taxi service. The DEA conducted planning and coordination and the UMOPAR executed the missions. Therefore, there was no anticipated requirement for a direct relationship between the military and the Bolivians. Task Force "Janus" members met the UMOPAR for the first time in the field. We learned quickly, however, that the UMOPAR officers had received four years of intensive paramilitary training. This education, partly intended to counterbalance Bolivian military forces,[5] also meant that the UMOPAR officers could communicate in military terminology. This led to rapid rapport with the Spanish-speaking U.S. military forces.

Defining Success

"Blast Furnace" was a tangible success when measured against relevent criteria. Those criteria were not clearly understood at the start. Some reasons for the initially unrealistic expections are:

- Lack of experience at this specific type of effort.
- News media influence on the definition of success.
- U.S. military anticipation of a more conventional ground force type of operation, using surprise and envelopment tactics to cut off the escape of traffickers and their goods. The military expected an operation with a "wallop" that would tangibly affect cocaine production for a long time. (The DEA had a better expectation of the potential results of the operation. They did not assume that one operation of this nature would virtually clean out cocaine production in Bolivia. They did hope that the operation would result in a number of arrests.)

From the beginning, the goals were to reduce the volume of cocaine refinement, arrest narcotics traffickers and seize large amounts of the drug. The National and International Drug Law Enforcement Strategy presented to Congress in January 1987 discussed measures of effectiveness in counternarcotics operations: "It is tempting to try to measure success . . . by the absolute amount of drugs seized, or by expressing (it) as a percentage of the supply . . . this approach does not reflect the value of interdiction as a deterrent. Successful interdiction will often

delay or prevent the shipment of drugs; seizures in a particular area could actually decrease as a result of effective interdiction."[6]

The effect of the mission on cocaine refinement in Bolivia had a tangible measurement: "Because many coca processing facilities were destroyed or shut down during BLAST FURNACE, prices paid for coca leaf in the region dropped to about one-seventh of their previous market value."[7] With continued pressure on coca leaf prices, farmers may convert back to legitimate, better paying crops.

The lack of arrests or seizure of quantities of cocaine hurt morale in the field. It also initially caused questions in Washington, D.C. The commander in chief, U.S. Southern Command sent a trio of briefers to the Pentagon and State Department to correct mistaken impressions, describe the effort and ensure support for continued operations.

Intelligence Lessons Learned

Initially, only Army combat service support sections were earmarked for involvement in "Blast Furnace." DEA planned to provide necessary intelligence from its HUMINT sources. As events unfolded, U.S. Army intelligence became more deeply involved from several aspects. Notice of the operation occurred only shortly before actual deployment. Less than three weeks after U.S. Southern Command received the support mission, the first forces arrived in Bolivia. From the intelligence viewpoint, this posed problems in three areas:

- Mapping. The full range of map requirements did not surface until the forces arrived in Bolivia. The Defense Mapping Agency (DMA) branch in Panama maintained a stock of 1:1,000,000 scale tactical pilot chart maps, adequate for aerial navigation to cities in Bolivia but useless for low altitude flight missions and visual navigation in the field. The maps showed only major terrain features which were often inaccurate by more than 20 nautical miles. Once in country, a 1:1,000,000 scale, locally produced hydrological map representing surface water features met the tactical mapping gap.[8]
- The threat. Because this operation was totally unprecedented there was no prior experience factor and almost no available intelligence data in the region. The commander had to structure his security forces on a guess,

balancing the need for a low profile with some form of troop protection. Although Bolivia proved to be much less hostile, worst-case scenarios were conceived, based on what was known about the well-armed, vicious forces of narcotics traffickers in nearby Colombia. Imagery analysts and ground surveillance radar teams joined the infantry contingent as part of the FOB perimeter security force.

"Taking a lesson from Intelligence Preparation of the Battlefield (IPB), the intelligence team studied the terrain of the *Beni* region for clues to likely targets."

- Targets. Although Army personnel did not become involved until after deployment, the targeting process was a significant area in which advance notice might have assisted the mission. When a DEA representative briefed U.S. Army representatives about a list of targets in Bolivia, nobody questioned his definition of target. To the military mind, "target" implied a confirmed location of roughly known size, specifically known location and an identified threat. To the DEA briefer, "target" implied a possible lab site in a very rough, general area identified by an informant. Having lacked military assistance for target confirmation in the past, the DEA often had to make do with instructions as obtuse as "travel up the San Simon River, turn toward the sunset at the third fork and follow the trail for three or four hours." After the "Leopards" visited some surprised ranchers a couple of times, Army intelligence lent a hand to the DEA target determination process. Had there been more notice of the operation, better initial coordination with DEA might have prevented the wasted effort on the ground. It also would have allowed greater use of national intelligence assets and an improved likelihood of surprise.

Taking a lesson from Intelligence Preparation of the Battlefield (IPB), the intelligence team studied the terrain of the *Beni* region for clues to likely targets. The technique was faulty at first, the team only analyzed the objects and indicators found at actual lab sites. This resulted in a list of indicators, such

as nearby airstrips, 55-gallon drums next to the airstrips, and so forth. Unfortunately, as the "Leopards" continued to descend on startled ranchers, the team learned these indicators also applied to legitimate sites. By eliminating the factors common to both lab sites and cattle ranches, the team derived positive indicators for use in target location by visual reconnaissance and imagery analysis.

Because the U.S. military role in "Operation Blast Furnace" did not permit direct contact with any arrested traffickers, no Army interrogators participated. In hindsight, however, an interrogator would have helped in document exploitation as well as in translation support.

Targets were found by a combination of HUMINT and IMINT. An informant identified a site, and imagery or visual reconnaissance pinpointed it. Visual confirmation of a location was necessary because of imprecise target coordinates and questionable informant reliability. Sometimes the system worked in reverse, with reconnaissance locating a suspicious area that later was confirmed by an informant. The lesson in this case implies that the "two int rule" (for intelligence) should be applied to the discreet targets found in low intensity/low profile situations.

Surprise should be the most important factor in future operations. The chance for arrests of narcotics traffickers fled with the loss of secrecy. Wealthy traffickers left for extended vacations when news of the operation came out in the media. Peasant lab workers closed shop whenever they spotted reconnaissance aircraft. Since the drug traffickers tended to use the same makes of small aircraft, the reconnaissance aircraft used by DEA were either uncommon to the area or had been previously identified as DEA planes. The reconnaissance missions were flown only during daylight, while we later learned that the traffickers usually moved at night. The obvious lesson for us is to conform to their established patterns and use aircraft captured from the traffickers. Reconnaissance aircraft equipped with infrared and flying night missions might have been useful for detection without giving warning. We did not have the opportunity to test this possibility.

Of interest to psychological operations planners was the effect I had on the natives. Even though I was dressed the same as the rest of the team and carried a weapon, the Bolivian people displayed visible relief when they saw me, as if a woman represented an assurance of their safety.

Personal Observations

Many of the problems we faced during "Operation Blast Furnace" were the result of the short-fused reaction time available to us. Since most realistic scenarios that might involve the U.S. today feature lack of response time, we should incorporate this factor into our training and routine planning. For example, map acquisition and storage should be a regular activity, especially in areas of historically lower interest.

"Blast Furnace" provided a valuable lesson of particular interest in a low intensity conflict (LIC) context. For years, the Air Force C130 aircraft was accepted as an adequate airframe to support LIC. In this operation, the initial plan was to use the C130 to move or "jump" the FOB at least weekly to reduce traffickers' ability to retaliate. In practice, this goal was not met. Although the *Beni* region had more than 15,000 dirt airstrips, few met the requirements for landing a C130. Fortunately, DEA provided a 50-year old C-47 for logistical support. From a military perspective, the mission and troop safety might have been jeopardized because of inadequate military equipment. Rather than limit future missions to airframe capabilities, this is the time to acquire flexible, small aircraft to support LIC needs.

Although it is likely that an operation with the scope of "Blast Furnace" will not be repeated, the operation as a whole was worthwhile just based on the lessons learned (or unlearned). ★

> ## "Although the *Beni* region had more than 15,000 dirt airstrips, few met the requirements for landing a C130."

Footnotes

1. *National and International Drug Law Enforcement Strategy, National Drug Enforcement Policy Board*, p. 26, submitted to Congress January 20, 1987, pursuant to Section 1304(a)(1) and section 1305 of the National Narcotics Act of 1984 (21 U.S.C. 1201-1204). There is licenced coca cultivation in Peru and Bolivia. Coca leaves are legally used for chewing, tea and medicines.

2. Contrary to common opinion, narcotics trafficking can badly damage a country's economy in several ways. At one time, Bolivia was self sufficient in basic food crops. Because many farmers converted to growing coca, it now must import substantial quantities of food to feed its people. Bolivia does not receive help from traffickers to pay its import bills. Instead, the laundered cocaine wealth finds its way into banks in Panama, the United States and other countries. Thus, Bolivia loses the services of contributors to the economy, while its few export dollars buy food rather than goods to build a solid infrastructure.

3. Although "Blast Furnace" stands out by its scale as unique for its cooperation of U.S. military and civilian agencies and host countries in a law enforcement effort, the DEA and the Department of State (through embassy country teams) have long been at work in other nations to squeeze the flow of illegal drugs into the United States.

> ## "Rather than limit future missions to airframe capabilities, this is the time to aquire flexible, small aircraft to support LIC needs."

4. After decades of being heavily influenced by the United States, Latin Americans are acutely sensitive to any perceptions that they might remain under the influence of the United States.

5. With 178 revolutions between 1825 and 1952, Bolivia has the reputation of having the most unstable government in Latin America.

6. *National and International Drug Law Enforcement Strategy, National Drug Enforcement Policy Board*, p. 83.

7. Ibid, p. 75.

8. The Defense Mapping Agency did not have the funds to meet all needs in all theaters simultaneously. But when sufficient priority permitted DMA to commit resources to the Bolivian problem, the agency responded with speed, quality and ingenuity.

Capt. Mary S. Brennan has served in military intelligence for 16 years in tactical, theater and national level assignments. More than eight of those years have been in Latin America. Brennan has completed undergraduate and graduate programs in Latin American studies. A recent graduate of the Military Intelligence Officer Advanced Course, she is now assigned to the Defense Intelligence Agency.
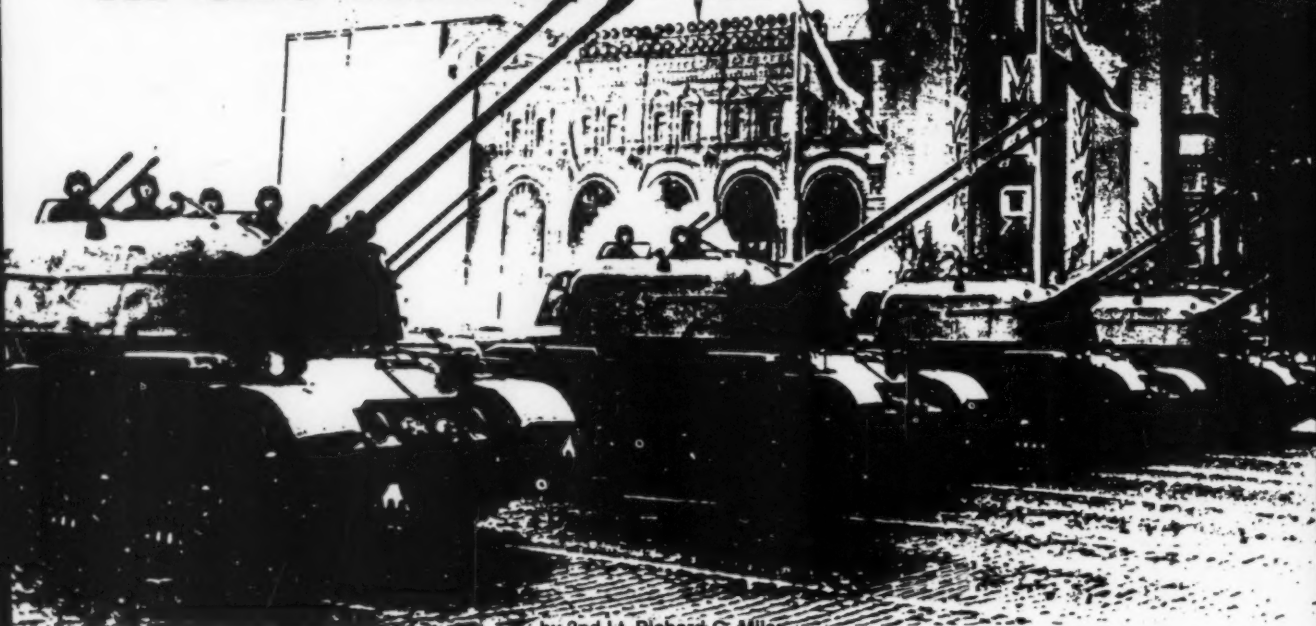
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Soviet Minorities in the Armed Forces

> "The leadership of the Soviet Union is frightened, both for historical and contemporary reasons, of the increased ethnic participation in the military."

by 2nd Lt. Richard G. Miles

Discussion of Soviet military capabilities and their implications on Soviet foreign policy has tended to focus on either Soviet nuclear strategy or the strength of Warsaw Pact conventional forces in Eastern Europe. What is often overlooked is the makeup of manpower in the Soviet armed forces and the rapidly changing ethnic composition of the military services. Why this should be an area of concern to Soviet planners and an area of interest to students of the Soviet Union requires a basic understanding of Soviet nationality policy. Also required is knowledge of the discomfort which has befallen Communist Party leaders when they see a not-too-distant future in which Slavs are a minority. They still hope (though not as optimistically as in the early days of socialism) that national differences can eventually be eliminated. Whether this can be achieved through absorption or integration is unclear.

Demographic changes in Soviet society tend to be reflected in the armed forces. It is important to understand the relationship, both past and present, of ethnic groups to the armed forces, as well as current Soviet policy regarding recruitment, training, education and deployment. A study of these factors shows that as a means of integration, service in the armed forces is a failure. The leadership of the Soviet Union is frightened, both for historical and contemporary reasons, of increased ethnic participation in the military.

Historical Perspective

The use of non-Russians by the Russian armed forces dates back to the 15th century. The employment of Tatars by Russian rulers in military campaigns had become routine by the time Ivan the Terrible used them in the 16th century. Previously, they had assisted the Grand Princes during their attacks on Moscow, Ivan III in the conquest of Novgorod and in the defeat of the Golden Horde in 1481. The reliance on the Tatars as auxiliary forces was a policy continued by later tsars, who sometimes entrusted Tatar nobility with the command of all-Russian forces. They were given this honor precisely because they were not Russians and not tempted to join in aristocratic infighting.

The status of nationalities in the armed forces changed somewhat after

Peter the Great introduced a system of conscription in 1699. Officially, non-Slavs were exempted from conscription, yet this did not mean participation by non-Russians in the armed forces was not allowed. A great many non-Russians continued to serve in separate units and were called *troops of different nationalities*. Soldiers in these units were allowed to keep their native dress and arms but mostly carried out subordinate missions, such as reconnaissance and guarding lines of communication. The troops of different nationalities comprised 3.5 percent of the combat troops by 1850. These figures declined sharply, however, prior to the Russian expansion into Central Asia during the 1870s, indicating a Russian fear of disloyalty on the part of the Central Asian troops.

The troops of different nationalities were dispersed as part of the military reforms of 1874, which officially required all males to serve in the military. Only nationalities that were considered "loyal" were actually conscripted. The exclusion of other, less reliable ethnic groups enabled military planners to maintain a comfortable three to one ratio of Slavs to non-Slavs in the army through the beginning of the 20th century.

World War I forced a quick readjustment of official policy towards nationalities in the military. Volunteer national units were once again permitted because of the chronic shortage of manpower, and for the first time Central Asians were drafted. Following the fall of the tsar and the subsequent chaos brought about by the Civil War, national units very often became national armies and broke away from any central authority. The Bolsheviks during this period intermittently allied with the national armies against the Whites or attempted to crush them to assert Soviet power. Only the Muslim Tatars were integrated into the Red Army. Indeed, at times they *were* the Red Army. Although Muslim Tatars may have been somewhat amenable to Bolshevik rule, Muslim Central Asians most certainly were not. The Red Army spent almost ten years fighting the *Basmachi* in the mountains of Central Asia.

A debate over the restructuring of the Red Army followed the Civil War. Finally, it was decided to convert the standing army with ready reserves into one that was based on territorial militias. Meanwhile, the various nationali-ties continued to demand the right to retain national armies. Lenin considered this demand ideologically out of the question but did allow the formation of national units that were strictly controlled by Moscow. In succeeding years, Stalin became increasingly suspicious of the nationalistic tendencies of these units, as well as the very idea of ethnic units. He eliminated them in 1938.

A world war once again forced the reconsideration of the issue of official national units. As many as 80 distinct national or multinational divisions were formed in 1941 to help fight the Germans.[1] Although the Soviets were able to recruit soldiers from different ethnic groups, they soon found that these units were of dubious value and loyalty. It was indicative of Stalin's years of terror that large numbers of soldiers of non-Russian nationalities, as well as some ethnic Russians, preferred to fight with the Germans. Despite harsh German treatment of citizens in occupied territories and an official ban against the use of Soviet nationals in the *Wehrmacht*, it has been estimated that as many as 1.4 million Soviet citizens and prisoners of war took up arms against the Soviet regime.[2] It is widely believed that the majority of all rear security troops in German-occupied areas of the Soviet Union was made up of indigenous soldiers. Collaboration with the Germans in the borderlands made the Soviets all the more suspicious of the loyalty of non-Russian ethnic groups in their own army.

Current Policies

The apprehension and suspicion with which the Soviet military authorities have viewed the participation of minorities in the Soviet armed forces is reflected in the current policies regarding recruitment, stationing and military education. Worried Soviet planners have attempted to mitigate the perceived "threat" of an increase in the number of non-Slavic conscripts through segregation, isolation and exploitation of inter-ethnic hostilities. Internal security troops (MVD), which are always based on the "extraterritorial" principle, are comprised mainly of Central Asians. This represents an attempt by the Party to exploit inter-ethnic hostilities. Border troops, however, remain virtually 100 percent Slavic.

The separation of suspect nationalities begins at the very start of the Soviet conscription system. There exists a

> *"The apprehension and suspicion with which the Soviet military authorities have viewed the participation of minorities in the Soviet armed forces is reflected in the current policies regarding recruitment."*
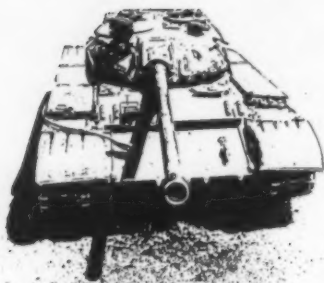
"All evidence indicates that the Soviet combat troops are comprised overwhelmingly of Slavic soldiers . . . non-Slavs are simply not trusted with weapons."

network of military commissariats (*voenkomats*) at every administrative level, from union republic down to the city district. This network keeps detailed files on all draft-age youth within the respective districts. The *voenkomats* are one component of the processing system that supplies the branches of the armed forces with soldiers of appropriate intelligence, physical characteristics, political reliability and ethnic background. The other component in the allocation system is called the "military buyer" (*pokupatel*). The *pokupatel* is sent from an individual unit or military district to specific *voenkomats* to "buy" recruits matching a list of certain required specifications. This entire process of conscripting and "buying" is coordinated by a central military authority. It takes the information supplied by the *voenkomats*, estimates the number of recruits needed in each branch of the armed services and directs the *pokupatels* to the appropriate *voenkomat*. The nationality mix can be easily controlled and adjusted through such a system. There are ways, however, for a recruit to get around this. The *voenkomat* system apparently has a widespread reputation for nepotism, corruption and bribery. For enough money, a recruit can bribe a *voenkomat* official to give him deferments, assignments closer to home, or sometimes an exemption from service altogether. This type of corruption is reportedly the most common in the Central Asian republics.

A clearer pattern of separation emerges in the second stage of the conscription process, the stationing practices. Extraterritoriality is the current policy upon which these procedures are based. This means that Soviet soldiers serving on active duty are not permitted to serve in their native regions and are more often than not sent to areas far from their homelands and native cultures. The significant exceptions to this policy are the construction battalions (*stroibats*) and the railroad support units. This policy gives way to military necessity during periods of rapid mobilization. This partly explains the relatively high percentage of Central Asian troops in the initial invading force into Afghanistan.

Extraterritoriality is a recent development in stationing procedures. As late as the early 1960s, there still existed some national divisions deployed according to the territorial principle. Certain incidents, like the 1956 riots in Tbilisi when Georgian troops refused to fire on crowds, probably helped to change policy. These experiences showed the military that the army has a domestic as well as an external function, and that they must always consider the most effective and politically reliable method of deploying internal troops.

The uneasiness with which the Soviets regard their non-Slavic recruits is further demonstrated if one analyzes the ethnic composition of individual units. Like virtually every other modern army, the Red Army divides its soldiers into two main groups; combat troops and non-combat troops. All evidence indicates that the Soviet combat troops are comprised overwhelmingly of Slavic soldiers, sometimes at a ratio of more than 80 percent. Non-Slavs are simply not trusted with weapons. The few non-Slavic soldiers that do find their way into combat units are usually assigned non-combat jobs. A large portion of non-Slavic soldiers end up in *stroibats*. A typical *stroibat* is comprised of more than 50 percent Central Asians, approximately 20 percent Slavs, and the rest Caucasians, Baltics and Jews. The main factor in being assigned to a *stroibat* is suspected disloyalty to the regime. However, as one source has pointed out, "Russians are suspected individually, whereas Central Asians, Jews, Germans, Estonians and other minorities are suspected collectively." It could be said that the non-Slavs are not even given a chance to prove their disloyalty.

One assignment, the placement of Central Asians in MVD units or as prison guards, seems to imply trust on the part of the regime towards non-Slavs. This is partly correct. Like the Tatars employed by the tsars, Central Asians and other ethnic groups with a known, ethnically-based animosity towards Slavs are trusted to put down any potential uprisings by the Slavic nationalities.

The so-called "high-tech" services, such as the Strategic Rocket Forces (SRF), the Air Force and the Navy, contain extremely small numbers of non-Slavic personnel. Soldiers from the Baltic States, however, are sometimes found in the SRF, reputedly because of their relatively high aptitude for technical assignments. The handful of Central Asians and Caucasians found in the SRF are almost invariably given

only menial jobs.

A partial explanation for the gross underrepresentation of minorities in both the highly-skilled enlisted units and the officer corps is their lack of military education, both before and during service. The Soviets officially claim that military service is a means of educating all of the Soviet peoples equally. Yet the authorities apparently don't even try, especially in the critical area of language training, to give Soviet minorities an equal chance of advancing to either highly-skilled enlisted positions or to the officer corps. One example of this is the complete lack of Russian language training by the military youth organization in the non-Russian republics. This deficiency is most harmful to the Central Asian and Muslim North Caucasian recruits who have the lowest levels of education and the poorest knowledge of Russian upon entry into military service. Soldiers from the Baltic states usually fare the best. They are perceived to have the highest level of education at the start of their service.

Once the non-Slavs are in the service, their training is equally poor. Only those recruits with a good knowledge of Russian are eligible for advanced technical training. Even non-technical training for non-Slavs is poor. Soldiers serving in *stroibats* are given only rudimentary, if any, training with weapons. Many former Soviet servicemen have reported that the only time they held a weapon in their hands during their entire term of service was while they were being sworn in—and sometimes not even then. In fact, it has been estimated that as many as 20 percent of the Soviet armed forces could be described as essentially unarmed civilians.

Officer education is the one area in the Soviet military in which authorities appear to be making at least some effort to redress the ethnic imbalance. Efforts are being made, officially at least, to recruit more minority officers. Yet the present Russian officer education system makes it discouraging, if not impossible, for non-Slavs to become officers. Currently, the officer corps is predominantly Slavic. To gain admission to a Russian military academy or school, a candidate must pass a rigorous exam in Russian language and literature. Furthermore, very few military schools are located outside of Russia proper. A contributing factor to the problem is an unwillingness on the part of non-Slavs to pursue a military career, which is virtually synonymous with becoming thoroughly "russified." Baltics and Central Asians, especially, perceive that those who succeed in the military schools and become officers are those who successfully discard their ethnicity and adopt a Russian persona.

Language abilities are problems for which Soviet military authorities have no simple solution. In an attempt to "totally immerse" recruits who have poor Russian-language skills, training and propaganda for all soldiers is conducted only in Russian. In fact, no other language is allowed in the armed forces on any occasion. In reality, Russian is not spoken uniformly. While by the end of their first tour of duty, most recruits have learned enough rudimentary Russian to communicate on a very basic level, they revert to their native tongue once away from the supervision of their officers or noncommissioned officers. Even in combat units where 80 percent of the soldiers are Slavic, the "Russian-only" rule can only be enforced while soldiers are in formation. In *stroibats* on the other hand, Russian cannot even be enforced in formation, since interpreters (usually bilingual sergeants) are needed to pass on commands and instructions.[3]

Current Problems

Recent articles in the Soviet press, recognizing the obvious language problems extant in the Soviet Army, have emphasized the need for a better system of training Russian-deficient soldiers. An article in **Krasnaya Zvezda**, the newspaper of the Soviet armed forces, carried a dialogue between a "military sociologist" and a political officer who commented on the effort to train minority soldiers in Russian:

"Small groups to study the Russian language have been set up. Their activites are organized and monitored by battalion deputy commanders for political work. Individual work is conducted with the help of fighting men of the Russian nationality, a well as of soldiers who have a higher education, but we see the main area of endeavor in eliminating the language barrier as intensive combat-training activity for personnel."[4]

If this effort is sincere, it marks a new trend in the Soviet Army, which previously has had virtually no Russian language training for minority soldiers

> **"It has been estimated that as many as 20 percent of the Soviet armed forces could be described as essentially unarmed civilians."**

during their time in service.

The problems resulting from poor communication because of language barriers, while serious, tend to be more frustrating than paralyzing. Command and control of soldiers who comprehend little of what is being said to them is difficult, if not impossible. Yet, since most Russian-deficient soldiers tend to be assigned to menial jobs, they are not required to have a high degree of fluency to perform their jobs. More serious is the problem of dissimulation; a pretense of not understanding by soldiers who can speak Russian. This practice appears to be common, although it is difficult to maintain over a long period of time.

A problem more serious than the language barrier is the manifestation of racially-based hostilities between groups of soldiers. While all multiethnic armies have problems of this sort, conflicts in the Soviet armed forces frequently lead to violence. The problem is exacerbated by one flaw in the *voenkomat* system, which sometimes assigns several soldiers from the same city, or even village, to one unit. Naturally, these soldiers will group together and look after each other's interests. Groups from one nationality or region soon come into conflict with other groups. More often than not, the conflicts are between Slavs and Asians. According to former Soviet servicemen, these conflicts include violent incidents, such as beatings, shootings and killings. Fighting is far more common in the ground forces, while occurring only rarely in the "high-tech" services. Considerable prejudice lies on both sides of the Slavic and Asian relationship. Slavic and Baltic soldiers tend to treat the Asians, whom they regard as stupid as well as poor soldiers, with a superior attitude. At best, this attitude results in Asians being invariably assigned the worst jobs, such as cleaning toilets and digging ditches. At worst it leads to physical abuse. One comment from a former Soviet Russian soldier was illustrative of many attitudes towards Asian soldiers:

"Of course everyone treated the *chuchmeks* (racial epithet) with contempt. Normally these Asians are very bad soldiers. . . . People treated them with contempt because *chuchmeks* are something like a lower race to Russians and Ukrainians. They are not strong physically, and they are very stupid. They couldn't handle equipment. Mol-

davians are this way too."
Another comment indicated the tendency towards violent responses, which were not uncommon:

"A young Uzbek soldier whom everyone picked on because he was racially and culturally different finally had enough. One day when he was supposed to go on guard duty, he took a machine gun from the rack and ambushed the entire guard detail, killing several and wounding many of the rest. The *churka* should have killed them all, but he was a terrible shot."

Although officers are strictly forbidden from engaging in any anti-ethnic behavior, NCOs and enlisted soldiers cannot be controlled. Thus the hostilities are widespread and enduring. There is evidence, however, that non-Slavic soldiers who enlist for a second tour of duty receive better treatment at the hands of the Slavic majority. Perhaps this is because they have become more "russified" and cling less to their native background.

Relations between local populations and soldiers stationed nearby, especially if there are major cultural and physical differences, are uniformly bad. In Russian areas, Central Asian soldiers are treated very poorly. Similarly, Slavs are looked down upon in Central Asian republics. The Baltic countries seem to despise all non-Baltic soldiers equally. This hostility is sometimes exploited by political officers who wish to maintain the reliability of troops in quelling domestic disturbances.[5]

The Soviet invasion of Afghanistan raised new questions concerning the use of ethnic groups in the armed forces. It has been well established that a large number of Central Asian soldiers were part of the initial invading force.[6] Figures range from less than 50 percent to almost 90 percent of the first troops in Afghanistan being Central Asian. This would seem to go directly against the concept of extraterritoriality, since Afghanistan has large populations of Uzbeks, Tadzhiks and Turkmenians. Western analysts have offered two reasons for this apparent contradiction. The first has been that the use of Central Asians was intended to blunt the political impact of the invasion itself. This tactic would not be without precedent, since Stalin developed the practice of using token indigenous armies in takeovers.[7] The second reason given by analysts for Central Asian participation is that the invasion was

hastily planned, which required the mobilization of large numbers of Central Asian reservists until other Category I troops could be transported to the region. This explanation is supported by the fact that the units that contained Central Asians were either combat units from low readiness divisions or from construction units. Both types of units were most likely intended for purely occupational purposes and not intended for actual combat. They were mostly assigned to high-profile tasks such as the guarding of airports and convoys, and construction work. Furthermore, there are no reports that the reservists who were called up received any additional weapons training prior to their deployment. By March 1980, most of the Central Asian troops and non-military personnel were removed and replaced by Slavs. In the span of several months, Soviet Central Asians, according to eyewitness reports, were beginning to fraternize with the Afghan population.[8]

Future Outlook

Finally, there is the demographic outlook for future non-Slavic participation in the Soviet armed forces. Currently, ethnic Russians make up less than 50 percent of the 18-year old cohort and are projected to comprise less than 46 percent by 1995. The cohorts for the Baltic peoples and all other non-Turkic Muslims will also fall in the period from 1980 to 1995. The male cohort, however, for Turkic-Muslims is projected to reach 28.9 percent by 1995.[9] These trends pose certain problems for Soviet military planners. They are essentially faced with several solutions. The total size of the armed forces could be reduced in order to maintain the current Slav to non-Slav ratio. There could be a temporary reduction in the number of deferments (virtually all of which are given for educational reasons) to Slavs and a corresponding increase for non-Slavs. The Soviets could begin to allow, or even encourage, non-Slavs to assume positions now held by Slavs until they are proportionally equal in all areas of the armed forces. The latter path, however, presupposes a more trusting attitude towards minorities in the armed forces as well as a basic reworking of Soviet nationality policy.

As an instrument of social — and socialist — integration, the Soviet armed forces have been a failure, and inter-ethnic tensions have been heightened, rather than diminished, by military service. Most non-Slavic recruits do not extend their required tours of duty. Language barriers in the military remain insurmountable. Minority soldiers, for the most part, leave the service speaking only marginally better Russian than when they entered. Slavic soldiers make no attempt to learn any other language.

The reasons for these failures cannot, of course, all be attributed to the Soviet military establishment. Military leaders, no doubt, do not see their primary mission as one of bridging cultural gaps. In fact, they are far more cognizant of the opportunities that exist to exploit cultural differences for purposes of internal security. In short, as long as there is not mutual trust among the peoples of the Soviet Union, and more importantly, between the leadership and the "Soviet people," the Soviet armed forces will continue to exhibit inter-ethnic tensions. ★

Footnotes

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"As an instrument of social—and socialist—integration, the Soviet armed forces have been a failure."

The Bear Trap

by Drew Allan Swank

On December 25, 1979, the Soviet Union did something it had not done since the end of World War II: it invaded a Third World nation with its own forces. Afghanistan is an underdeveloped, mountainous country located in a strategic position relative to China, India, Iran and the Persian Gulf. However, the Soviet Union was unable to subdue what was basically a tribal rebellion in this impoverished country. The Soviets initially sent 85,000 troops, spearheaded by the 105th Guards Airborne Division, into the country. Nine years and possibly 15,000 casualties later, they had 180,000 combat troops engaged in fighting a determined and formidable guerrilla force (the Mujahedin). The Mujahedin not only effectively control a large majority of the country but are also more organized, better equipped and more lethal than they were nine years before.[1] In order to understand the Soviet involvement it is necessary to look at the participants in the conflict, their objectives, base values, strategies, the geopolitical situation and the probable outcome and effects.

On April 27, 1978, the Armed Forces Revolutionary Council led a coup against the Sardar Mohammed Daoud Khan regime and through the People's Democratic Party of Afghanistan (PDPA) established the government of the Democratic Republic of Afghanistan (DRA).[2] This new government, composed basically of elements of the Khalq and Parcham Communist Parties, immediately started to enforce a series of reforms which resulted in a revolt of various tribal groups.[3]

The Soviets aided the Communist government by sending some 2,000 advisors and millions of dollars worth of military equipment to the Afghan Army. With time, however, the situation deteriorated to such a point that the Mujahedin threatened the very existence of the Communist regime. The Soviets, determined to maintain a Communist government in power, invaded the country not only to eliminate opposition to the regime but also to establish a new government under Babrak Karmal, who would be more obedient to the Kremlin.

The Participants

Five major categories of participants became involved in the Afghanistan conflict: the people associated with the indigenous Communist regime, the refugees, the Mujahedin, the Soviet forces and a category of "other" that included countries or organizations overtly or covertly involved in the conflict.

In the first category are those people associated with the Afghan government, which includes the two Communist parties, the army and the secret police organization, KHAD. The PDPA is modeled directly on the Communist Party of the Soviet Union in both ideology and organization. Elements of both parties are in the government, with the smaller Parcham faction holding the highest positions. In all, the PDPA has only 11,000 members from which the government personnel are drawn.[4] Unfortunately for the PDPA, however, there are no linkages between the people and the party. The party leaders have no influence over their own tribes or ethnic groupings, and this factor along with a lack of understanding of the different peoples of Afghanistan were two of the major reasons for the demise of the Daoud government.

The Afghan Army at the beginning of the conflict numbered around 100,000 troops. Now after nine years of casualties, defections and desertions, the army can only muster 30,000 men.[5] Entire companies and battalions of troops have deserted to the Mujahedin, other units supply the rebels or have "non-aggression pacts" with them. The army as a whole has been penetrated by the Mujahedin who "allow" themselves to be drafted and then conduct sabotage, induce defections and provide valuable intelligence to the resistance. The army is so ineffective that the Soviets had to resort to using militias to maintain order and patrol highways. The Kremlin in certain cases disarmed some units rather than have their weapons going to the resistance.

KHAD is under direct Soviet control via the KGB and GRU.[6] But, KHAD has also been penetrated by members of the resistance. Although considerably more effective than the army in combating the Mujahedin, KHAD has relinquished most of its covert functions directly to the KGB. KHAD's primary duties in the conflict were to rout out

infiltrators, assassinate key resistance leaders and conduct intelligence and psychological operations both inside the country and beyond its borders.

The second category of participants is the refugees. The world's single largest refugee population are Afghans who have fled the conflict. In Pakistan alone there are over three million refugees in 340 camps. More than 800,000 are in Iran, and others have fled to Europe or the United States. Much of the Soviet strategy has been aimed directly at the civilian population with devastating results. As of 1981, there were 500,000 civilian casualties from the conflict. Today that number is probably well over 750,000 people.[7] The presence of so many Afghans in Pakistan has created economic and political problems between the two populations, and this tension is being exploited by the Soviets.

A major category of participants is the Mujahedin. Called Basmachis or Dushman by the Soviets, the Mujahedin is composed of members of all Afghan social stratas, Afghan Army deserters, Soviet deserters, a few foreigners from Pakistan, and citizens of the Soviet Republics of Tadzhikistan, Kazakhanstan and Uzbekistan. There are a variety of groups that are divided ethnically, geographically, linguistically, culturally, ideologically, politically, and depending on whether they are full-time, part-time or seasonal fighters.

Three moderate groups have formed an "alliance" of cooperation, as have seven fundamentalist groups. The Mujahedin operate not only throughout all of Afghanistan but also in Tadzhikistan, Kazakhanstan and Uzbekistan. Some groups operate out of base camps in Pakistan or Iran. Many of the groups have their headquarters well within Pakistan for security.[8]

The fourth major category is the Soviet forces and associated advisors in the country. Before the current United Nations-sponsored accords were signed, troop size estimates ranged from 115,000 to 180,000 (not including the troops in the Soviet border areas). In the initial invasion the Kremlin mobilized Soviet reservists and used one airborne division and seven motorized rifle divisions (MRD).

Many of these original troops were from Central Asia, for the Soviets thought that since these soldiers were from similar ethnic backgrounds they would be received better. Unfortunately

for the Soviets, these troops sympathized with the Mujahedin and Afghan population. Their struggle was the same one that these troops' forefathers had fought fifty years earlier. To combat this, the Kremlin started to rotate troops in from the western regions of the Soviet Union. At the beginning of the conflict, the Soviets said that their troops in Afghanistan were only "exercising" and training with the Afghan Army and not engaged in combat. In 1981, the Soviets started to admit that some units had been engaged in combat.[9]

Besides military personnel, the Kremlin has advisors at all levels of government who rule the country through the Afghan administrators. These advisors range from the economic to judicial and even educational ministries. The KGB has effective control over the KHAD and has penetrated every ministry covertly so as to counter Mujahedin infiltration. East Germans are supposedly running the police agencies, and Cubans and Vietnamese are in the country as counterinsurgency experts.[10]

"The Soviet Union was unable to subdue what was basically a tribal rebellion."

The countries and organizations involved outside Afghanistan are the last group of participants. The countries directly aiding the Soviet effort included East Germany, Vietnam and Cuba. Eighty percent of all Afghan trade is with the Council for Mutual Economic Assistance, composed of the Soviet Union, the Warsaw Pact nations and other select countries.[11] The United States, the United Kingdom, Pakistan, Iran, Saudi Arabia, Israel and the People's Republic of China aided the Mujahedin. Various Western non-governmental agencies and organizations also sent both humanitarian and military aid to the resistance.

Objectives

The objectives of the participants vary not only among themselves but also within the various groups that compose each major category of participant. The Communist Afghan regime's main objectives are to eliminate any resistance to their government and to take over the effective rule of the

country from the Soviets. Since the leaders are devout communists, they no doubt will remain very close to the Soviet Union, for their rule is based on Soviet military might.

The refugees want peace and the possibility to return home and lead a normal and productive life. The Mujahedin want all Soviets out of the country. Additionally, they want the Communist regime to be replaced with one of two types of governments. The first, supported by the moderates, is a democracy of some sort where the Afghans would choose the type of government they want. The fundamentalists want a pure Islamic government based on the Koran. The two theories of government represent the main dividing force between the two major Mujahedin groups.

In all probability the Soviets had several objectives for fighting in Afghanistan. They may have perceived it as a situation for the implementation of the "Brezhnev Doctrine," which states that if any client regime is threatened, the Soviet Union has the right to intervene. They may also have felt the need to eliminate any Islamic fervor so that it could not flow into Central Soviet Asia.[12]

From the Communist Bloc nations' standpoint, however, the involvement of such large Soviet forces and the resultant economic drain hurt their individual desires. The money spent in Afghanistan could be spent in East Germany or Cuba, for example.

Pakistan's objectives include a Soviet withdrawal of forces, repatriation of refugees, guarantee of Afghan status as a nonaligned country and the Soviet recognition of the right of Afghans to choose their own government.[13] In many ways these are the same objectives of the United Nations, with the addition of an immediate cessation of hostilities and a settlement that would be in the best interest of Afghanistan.

Base Values

The Soviet Union has one of the world's most powerful conventional military forces. Due to the nature of combat in Afghanistan, however, the Soviet military with its "European biased" training was unable to utilize the factors that made it so powerful. The conflict in Afghanistan did not call for the large, massed mechanized forces which are the bulk of the Soviet Army.

The Soviet Army, while being very skilled in fighting battles of massed

maneuver warfare, was not organized, trained or equipped to specifically fight a counterinsurgency war. The rigid command structure and limitations on the independent actions of lower elements make the Red Army, as a whole, unable to effectively fight a fast moving, limited engagement, guerrilla war. The Soviets have had to rely on their specialized troops — the *Spetsnaz* forces, airborne and airmobile.

The Soviet soldier is just as susceptible as any other to the stresses of warfare. The Soviet Army experienced a marked increase in problems of morale, discipline, desertion, and drug and alcohol abuse.

The Kremlin was spending approximately four million to 10 million dollars a day in Afghanistan.[14] This was a definite drain on the economy. The economic benefits from the invasion, however, included the natural resources in the Sheberghan gas fields and the fact that Afghanistan is an important future export market.

The Afghan population has had a long-standing abhorrence of foreign intervention, especially when it involves the Soviets. The Afghans, being mostly devout Muslims, cannot understand the atheistic ideology of communism. They have always prided themselves in their independence and would do anything to preserve it. The Soviet leadership did not understand such people. This created problems in strategy development. Both the Soviets and the Mujahedin respected the other's military ability, but neither culture truly understood the other.

When the Soviet Union invaded Afghanistan, almost every country condemned the intervention. While the United States feared the invasion was a quest for the vital Persian Gulf region, Third World countries feared they also would suffer the fate of Afghanistan.

Strategies

The Soviets employed several types of strategies in the Afghanistan conflict —political/diplomatic, ideological/ psychological, economic and military. However, all strategies were centered around the quest for political objectives. Since the beginning of the conflict, Soviet strategy was aimed at gaining control of the indigenous population. For a socialist government to stay in power in Afghanistan, the resistance had to be eliminated and at least certain sectors of society changed to be

receptive and supportive of the new regime and the Soviet Union. This "Sovietization" of society is a long-term political strategy accomplished through mostly educational and economic means.[15] Due to the Kremlin's "scorched earth" policy, the economic base of Afghanistan is destroyed. One reason for the mass exit of so many refugees is

> **"The army is so ineffective that the Soviets had to resort to using militias to maintain order and patrol highways."**

that the land can no longer feed them. The most effective weapon the Soviets used to cut the Mujahedin from its base of support was the ability to bribe the Afghans to not aid the resistance. The Soviets, using Afghan officials, went from village to village offering food and aid to those who would not aid the Mujahedin.

The Soviets also tried to eliminate support for the resistance by exploiting tribal and cultural differences inside the country. By using this technique they pitted one group against another so that some of the Mujahedin's effort was spent battling among themselves. One aspect of this strategy was for the KGB, KHAD or *Spetsnaz* forces, under the guise of being "Mujahedin," to attack other resistance groups and help fuel infighting and disorganization.

The Kremlin attempted to seal off the border between Afghanistan and Pakistan where most of the Mujahedin's arms shipments enter. They resorted to entering Pakistani territory with patrols and aircraft in order to stop the resupply caravans. The Soviets also applied diplomatic and political pressure on countries who sent aid to the Mujahedin. Part of this effort was accomplished by altering the world's opinion of the Soviets' actions via the media. If the Soviets were releasing political prisoners, talked about economic reforms or new arms proposals, then that was what the press covered, not the occupation of Afghanistan.

The initial Soviet military strategy was to invade the country with a much larger than necessary military force and sweep through any contested areas

to eliminate the resistance forces. The slow moving MRDs, however, would move through an area and find no resistance, for the guerrilla forces would not emerge and fight a conventional battle with them. The Mujahedin would only attack convoys, ambush patrols and assault small outposts. The Soviets, therefore, had to alter their tactics and move to a battle plan that utilized three levels of forces: the heavily armed MRDs, the highly maneuverable air assault forces and the elite *Spetsnaz* troops. By utilizing MRDs to cordon the resistance forces, the maneuver forces could seize key terrain and cut off the retreat of the rebels. The trapped Mujahedin had to fight their way out against a superiorly equipped force. The use of *Spetsnaz* troops had remarkable results. These troops followed the resistance into their mountain sanctuaries and conducted raids, ambushes and counterambushes.

The military strategy also included the use of technological weaponry. The Soviets' use of tactical and strategic air power was a major factor in rapid force projection. They put a great emphasis on using air transportable troops. By using these troops, they could choose when and where they wanted to achieve numerical superiority.

The Soviets relied almost entirely on airpower in the desolate western regions. They had great success with assault helicopters, especially the infamous Mi-24 Hind D, in finding, fixing and destroying the enemy. In many respects, the Soviets employed helicopters much like the United States did in Vietnam. Tactical jet aircraft, unable to maneuver in the mountainous valleys, were used in basically a bombing role.

With the delivery of U.S. Stinger missiles and Chinese-supplied SAM-7 antiaircraft missiles to the Mujahedin, the Soviets had to be much more cautious in their use of airpower. The Mujahedin reported downing an average of one aircraft per day.[16] The Soviets became more protective of their aircraft, keeping them out of hot regions. The success of these air defense weapons were another reason for the increased Soviet effort to seal the Pakistani border.

Outcome and Effect

It is much too early to determine the lasting ramifications of the conflict. The Soviets were unable to destroy the

Sino-American Security Ties

by Maj. Robert B. Adolph Jr.

The steadily improving relationship between the United States and the People's Republic of China (PRC) may be the most important U.S. foreign policy development of the last two decades. This is true because of the change it has made in how U.S. foreign policymakers perceive the nature of America's strategic relationship toward the Soviet Union. That relationship, historically adversarial and competitive, is changing dramatically with the growing Soviet perception of a possible Sino-American alliance.

President Nixon's visit to China in 1972 came to be known as "the week that changed the world." This perception was widespread because every administration since Truman had developed foreign policy based on the perception that the world had only two political, ideological and economic poles. One pole was the free world led by the United States, and the other pole was the Communist world led by the Soviet Union. This bi-polar concept colored nearly all foreign policy decisions. Foreign policy was developed, at least in part, on how that policy would affect the Soviet Union. Although it is a recognized fact that the world is developing along a multi-polar political and economic path, bi-polarity is still a prevalent U.S. foreign policy consideration.

Nixon's trip to Beijing highlighted the fact that China was not only independent of Moscow, but had also come to view the Soviet Union as an enemy. Americans who had previously viewed communism as monolithic were compelled to recognize that a significant split had developed between the two Communist superpowers. With this split came a new concept described as "the strategic triangle."

The PRC became the "wild card" in this triangular relationship and was capable of tilting the balance of power that had existed for decades between America and the Soviet Union. The bi-polar concept suggested that Washington should view its relationship with China as a means to influence Soviet behavior.

Technological Need

In 1983, the Reagan administration placed the PRC on the State Department's list of "nonaligned but friendly nations." Until that time, China was still listed as a potential antagonist. Much of the military technology they sought was denied them in their former status. Now, a low-key security relationship between the United States and China is developing based on arms sales and technology transfer. Beijing would like to buy technologically advanced equipment which cannot be produced domestically. More important, they want the technology necessary to produce their own weapons systems. Recently, the United States and the PRC agreed on a $500 million arms sales package which would significantly upgrade the recently developed F-6 fighter. There are plans for construction of an artillery munitions factory and for transfer of technical specifications for 155mm projectiles. The United States has already sold the PRC civilian versions of the Sikorsky Black Hawk helicopter, General Electric LM2500 gas turbine engines for warships, Raytheon DE1167 towed sonar and MK46 M002 torpedoes.[1]

Parris Chang, the noted China specialist, says that China must have access to advanced western technology.[2] The military technological gap between China and the Soviet Union grows almost daily. The larger that gap, the greater the advantage to the Soviets. For the Chinese, the United States is the most logical supplier of advanced military weaponry. Even if Sino-Soviet relations were good, the Soviet Union has much less to offer in this critical area than does the United States. Arms sales and technology transfer is an example of the triumph of Chinese pragmatism over Communist ideology. The purchase of military hardware from the West's leading capitalist state would have been unthinkable twenty years ago. The real threat, in China's perception, is not U.S. imperialism but Soviet external domination.

Complications

While the United States obviously favors the establishment of closer ties with the PRC, there are certain complications with this policy that will not be easily overcome:

- In order to normalize diplomatic relations with the PRC, the United States had to sacrifice its longstanding relationship with Taiwan. This was a particularly difficult move, since Taiwan still has many staunch supporters in the U.S. Congress.

- The PRC is a Communist state. The country is politically, culturally and economically very different from the United States. Washington must be able to deal effectively with a government that is completely different, politically and idealistically.

- In late 1979, the PRC and the Soviet Union began talks aimed at normalizing diplomatic relations. Beijing may seek to publicize its claim in the strategic Spratly Islands to press the Soviet Union to accept Chinese sovereignty prior to a possible normalization of Sino-Soviet ties. Normalization has grown more likely with Moscow's recent decision to withdraw from Afghanistan.[3] A closer Sino-Soviet relationship could seriously hinder Sino-American relations.

From China's perspective, the problems in dealing with the United States may be even more difficult:

- Despite China's size and population, it is by Western standards a poor and underdeveloped nation. The PRC's leadership recognizes that this places China at a disadvantage in potential security arrangements with the United States. It places the PRC in a junior partner's role in military technology.

- Ideology, although deemphasized in its recent dealings with the United States, is still a thorny domestic issue in China. The Chinese Cultural Revolution in the late 1960s demonstrated the volatile nature of China's domestic politics. Another such upheaval could possibly change Chinese foreign policy perceptions.

- China lacks the hard currency to purchase from the United States the expensive military technology it seeks.

- China has deep-rooted national-

istic feelings and views itself as a leader in the Third World. Its leadership will resist any U.S. overt actions to curtail its independent foreign policy and limit its flexibility.

Sino-Soviet Relations

Abetting closer Sino-American security ties is the fact that neither nation directly threatens the economic or regional interests of the other. On the other hand, Soviet expansionist policies have kept the Sino-Soviet relationship strained.

The Sino-Soviet border clashes in 1969 set the stage for the "war of words" that still exists between the two powers today. Recently, however, the tone of that war has been muted since the Soviet Union has pursued a more moderate policy toward China. Still, an unsatisfied precondition for more normalized relations is fewer Soviet soldiers along their common frontier.[4]

The Soviet Union provided ample proof of Soviet expansionist policies with the invasion of Afghanistan in December 1979. This was viewed as an aggressive act and was publicly condemned by both China and the United States. The invasion reinforced the Chinese perception that Moscow was bent on hemispheric dominance. The PRC will closely monitor the upcoming withdrawal of Soviet troops.

Soviet economic and military support to Vietnam further aggravated its relations with China. That support made it possible for Vietnam to invade neighboring Kampuchea (Cambodia). (Another unsatisfied precondition for normalized relations is the withdrawal of Vietnamese troops from that country.[5]) Additionally, that same support allowed Vietnam to withstand Chinese military incursions in 1979.

The threat of a Sino-U.S. alliance is not taken lightly in Moscow. The Soviet Union is faced with potential military threats on two borders: NATO in the west and China on its southeastern border. The leadership in Moscow recognizes that they have few genuine allies. North Korea and Vietnam are probably best described as clients. The Warsaw Pact nations are politically and militarily unreliable. Further, the growth of economic ties between the Warsaw Pact countries and the European community also gives Moscow pause.

Conclusions

For the United States, the question is where to from here? Should America base its security policy with China exclusively on strategic needs, or should it be more balanced? Should U.S. policymakers base decisions predominately on bi-polarity theory? According to Edward Ross, the development of Sino-American military relations began soon after the normalization of diplomatic relations between the two countries.[6] America's China policy is still developing. The current administration tends to lean heavily toward the bi-polar theory, though strict bi-polarity has its problems: "It seems unlikely that a Sino-American relationship founded on opposition to the Soviet Union could have the breadth of view or flexibility to cope with the tensions one can expect to arise out of cultural differences, differing foreign policy goals and differing views on how to cope with the Soviet threat."[7] The United States must base its relationship with China on more than anti-Sovietism. We have to expand areas of mutual concern, develop similar interests and establish a domestic view of China which recognizes their need to conduct an independent foreign policy.

The United States can increase economic and military aid, expand cultural and student exchanges, establish a joint U.S.-Chinese economic development organization and form other business and governmental groups. Establishing a bond with China will take time, patience and understanding. If we can assist in bringing China fully into the international economic order and develop mutual interests, then we can reasonably expect them to respond positively to broader U.S. security initiatives in the future. The ongoing exchanges of high-level government officials and senior military personnel are examples of the linkages we should expand. Continued close contact will foster mutual understanding and respect.

Our continuing support of Taiwan is still a major unresolved issue. Despite our differences, the PRC is at least willing to agree to disagree as evidenced by the Shanghai Communique which essentially listed unresolved issues between the two powers. It is extremely unlikely that China would consider any formal security arrangement with the United States unless Sino-Soviet relations worsen. China, however, is continuing in its attempts to normalize relations with Moscow so that they can modernize militarily and develop economically while at peace. The Soviets will most likely continue to attempt to drive a wedge into the continuing Sino-U.S. *rapprochement*.

The security relationship that the United States and China are attempting to forge is slowly developing and will improve gradually if the present relations among all three powers remain relatively stable. China's drive for modernization provides encouragement for improving relations with the United States. China's desire for peace is a good reason for *rapprochement* with the Soviet Union. The United States must attempt to expand mutual interest outside of security concerns and bi-polarity. The expansion of economic, cultural and political programs is essential. A stable, developing and friendly China may be America's best chance for the maintenance of peace into the next century. ★

Footnotes

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DEFENSE BY CONSENSUS

Japan's Turbulent Defense Program

防備

by Michael Evancevich

Many Americans believe that the Japanese are not committing sufficient resources and manpower towards the development of what we perceive as an adequate defense program against an increasing Soviet military threat. Some Americans also believe that Japan's defense program will remain largely passive because of its overreliance on the U.S. military to protect Japanese territory and economic interests. A State Department publication, *"Toward a Better Understanding of U.S.-Japan Relations"*[1] states that: "We in the United States make three assumptions about a strong military force that the Japanese do not make. The first is we assume that a strong military force benefits foreign policy. However, that may not be so for Japan, at least as regards to East Asia. All of the Asian countries have told the Japanese that a Japanese military buildup is not necessarily in their best interests.

"The second assumption is that a strong military force enhances domestic security and tranquility. That may be true in the United States but it certainly is not true in Japan. The Japanese fear a resurgence of militarism. Mayayoshi Ohira, a former prime minister, has written that Japan has two modes. One is when Japan looks outward and is cooperative; it wants to work with the rest of the world and is secure in and of itself. The other is when Japan looks inward. When Japan is in its inward mode — paranoid and frightened — it starts talking about a strong military force. Ohira has said that if there is one thing a prime minister must do, it is to keep Japan looking outward. The third assumption is Japan should take a serious view of the Soviet threat as the United States does. The Japanese do not take this threat so

seriously, although the invasion of Afghanistan, and the Korea Airliner (007) incident have been sobering.

"On this score, the Japanese ask three questions. The first is why would the Soviet Union even attack on its weakest and most distant front? Of all the places in the world, it would be most difficult for the Soviets to do anything in Japan, so why would they start there? The second question is what do the Soviets want from Japan? Could it be their technology? Is a war to acquire it necessary? The third question is, does the Soviet Union really have the capability to mount a sustained conventional attack on Japan?"

Japan's postwar economic recovery has clearly been a boom. The big economic names such as Toshiba, Yamaha, Mitsubishi, Kawasaki, Honda and Nissan drive Japan's economy. However, there are literally hundreds of smaller companies that form the matrix of the Japanese economic chain. These major and minor companies also play a key role in the formulation of Japan's military and national security policies.

> **"Any attempt at blockage of Japan's sea lifeline can cause her very serious internal problems and could force Japan to again redress this situation by using military means."**

Japan's industrial concerns have their own heavy industry components which produce Japan's tanks, artillery, tactical aircraft and naval surface combatants for the self-defense forces.

One of the principal causes for Japan's pre-World War I and II military expansion into Northeast Asia and China was to secure the necessary resources to sustain her increasing population and rapid industrialization programs. Japan today is again showing some of the symptoms of her prewar lack of natural resources problems. With her population expected to number about 130 million by the year 2000, Japan remains heavily reliant on imports from foreign markets to sustain present living standards, while at the same time sustain her foreign export and science and technology programs. In oil imports alone, Japan is almost totally dependent on Persian Gulf oil sources. It looks to Western Europe and the United States for its purchases of steel and other minerals.[2] Therefore, any attempt at blockage of Japan's sea lifelines can cause her very serious internal problems and could force Japan to again redress this situation by using military means.

On the whole one can safely say that the Japanese still revere their Emperor. They for the most part still speak one national language and are ethnically united.[3] As a people they tend to support their family head, their supervisors and their government's domestic and foreign policies. This cultural uniqueness was used by Japan's leaders in the past to emphasize Japan's military superiority and her destiny to rule Asia. Her perceived cultural superiority led to her decision to create the Greater East Asia Co-Prosperity Program during World War II. Japan's military lead-

ers had hoped to harness Asian nationalism to its war effort by offering national independence to Indian, Burmese, Filipino and Indonesian leaders sympathetic to Japan.

The Japanese were unable to bring their Co-Prosperity Program to its conclusion due to their military defeat in World War II. However, the effort did set in motion the postwar anti-colonialist revolutionary forces that ultimately caused the collapse of European colonial regimes in Southeast Asia.

"Japanese historically view Russia's appetite for expansionism as insatiable."

Japan's military expansion followed by military defeat, demilitarization policies and renunciation of war form the common core of Japan's postwar national security concerns. Japanese historically view Russia's appetite for expansionism as insatiable. Many older Japanese still remember the Soviet Union's attack on Japan during a time when she was already militarily defeated. The Soviets declared war on Japan (August 9, 1945) and launched a military blitzkrieg seizing Southern Sakhalin, the Kuril Islands, Manchuria and North Korea.

History of U.S.-Japan Relations

The historical relationship between Japan and the United States began with the visit of U.S. Naval Commodore Perry and other Europeans to Japan during the mid-19th century. The industrial revolution in Europe, with its technological advances and the promise of higher economic production and power generated from greater profits, offered Japan's rulers a means to unify the nation's warring factions. At the same time the period of opening up of contacts between Japan, the United States and other European powers also provided the opportunity to build Japan's industrial machinery without the risks of colonialization by the militarily powerful Western Nations. The drift towards militarization began with Japan's transition from a primarily agrarian society to an industrial nation. Militarization was fueled by Japan's population growth, nationalism coupled with the philosophies of the warrior code and Samurai spirit, and her insatiable need for oil, steel and other products.

World War II devastated Japan in terms of destruction of her major cities and economy and enormous civilian and military casualties (estimated at 3 million). The home islands of Japan were subsequently occupied by U.S. military forces from September 1946 until 1952. The postwar demilitarization policies of Gen. Douglas MacArthur resulted in revitalization of the Japanese economy. The emperor assumed the role as the titular head of state and the daily operation of the goverment was in the hands of a democratic, bicameral form of parliamentary government.

Formation of the Self Defense Force

Many of Japan's defense problems plaguing her today stem from her experiences during World War II and the Peace Constitution formulated in November 1946. Specifically, Article IX of the Japanese Constitution states:

"Aspiring sincerely to an international peace based on justice, the Japanese people forever renounce war as a sovereign right of the Nation and the threat or use of force as a means of settling international disputes . . . . Land, sea and air forces, as well as other war potential, will never be maintained. The right of belligerency of the state will not be recognized."[4]

The beginning of the "Cold War" between the United States and the Soviet Union and the victory of the Chinese Communists over Chiang Kai-Shek's Nationalist Armies in China in October 1949 completely changed the complexion of the U.S.-Japan defense relationship. The stemming of the Communist revolutionary tide in Asia became a key foreign policy objective for the U.S. government and was the major factor in accelerating the ending of U.S. military occupation of Japan. During the Korean conflict it became necessary for the Japanese to assume the physical security for numerous military bases and training areas previously occupied by the U.S. military forces. Japan had become a military staging area and logistical support base for the U.S. and U.N. military effort in Korea. The conclusion of the armistice in Korea in July 1953 prompted the withdrawal of substantial U.S. military forces from the Republic of Korea and Japan as well. This was followed shortly by the establishment of Japanese armed forces for the first time since Japan surrendered in 1945. In keeping within the parameters of Article IX of the Japanese Constitution, the forces established were termed the Japanese Self-Defense Force (JSDF). The JSDF was divided into ground, air and maritime self-defense forces (GSDF/ASDF/MSDF).

Initially, the JSDF was formed from the nucleus of the internal security forces established during the Korean conflict. The fledgling JSDF was severely constrained by the following prohibitions:

• Not to be deployed outside of Japan's home islands for the purpose of assisting foreign military operations.

• Not to conduct military research in the development of nuclear weapons.

• Limited in the development or production of weapons that would be in violation of Article IX or that could be used to project Japan's military power.

• Must remain a small voluntary force led by civilians with a small professional military leadership cadre.

• Influence in the conduct of Japanese domestic, political and foreign military contacts must be constantly monitored by the government of Japan.

• Future plans to expand either the force or the research and development of the armament industry strictly controlled by the government of Japan and the legislative body (the Diet).

The JSDF is under the management of a Director General appointed by the prime minister, plus a bureaucracy to support the Director General called the Japan Defense Agency (JDA). To assist the JDA Director General are several Vice-Director Generals responsible for budget, logistics, research and development, weapons procurement and liaison with defense related production. Each of the ground, air and maritime units are commanded by a chief of

"In terms of numbers, all armed components of the JSDF are the minimum necessary for defense."

staff. The JDA headquarters complex is located in the Tokyo area, with command, control and communications links to regional Army, Air Defense and Naval Districts throughout Japan. The majority of the equipment being used

by the JSDF is mostly U.S. manufactured and produced in Japan under U.S. license. From 1959 to 1976, the JSDF was trained, equipped and organized according to a series of time-sequenced defense buildup plans. Initially the buildup plans authorized the GSDF to form six infantry divisions with combat support and service support units with a ground force personnel strength of 130,000 men. The GSDF divisions are subordinate to five regional armies whose structure is similar to a U.S. Army tactical corps organization in terms of their subordinate number of divisions and combat support units. Changes to the buildup plans in 1970 enabled the GSDF to expand from six to 12 infantry divisions and one armored division with a new personnel ceiling of 180,000. In terms of numbers, all armed components of the JSDF are the minimum necessary for defense.

In October 1976, the government of Japan made two substantial decisions that affected the development of Japan's defense capabilities. First was their decision to limit defense spending to within one percent of Japan's gross national product. The second was to do away with the defense buildup plans and use another force design formula to control the future growth of Japan's armed forces. This new method was dubbed the National Defense Program Outline (NDPO). The NDPO sets the ceiling for the JSDF on the numbers of authorized tanks, ships, aircraft and manpower. The NDPO can be amended or revised with the approval of the prime minister and Diet. Many key civilian and military leaders are pressing for either a new or an updated NDPO. The decision to change from the buildup plans to the NDPO was fostered by the following events:

• The drastic shifts of U.S. military power in Southeast Asia and South Korea.

• Expansion of Soviet military power in Northeast Asia and deployment of Soviet long-range bombers and surface-to-surface strategic missiles capable of hitting anywhere in Japan.

• Increased Soviet militarization of the Kuril Islands.

• Soviet naval threat to Japan's sea-lanes.

Soviet Military Threat to Japan

From the time of the Czars, Russia's expansion to its current Far Eastern borders has been blocked first by China's rulers and then by the imperial ambitions of Japan's military. This resulted in armed conflicts between Japan and Russia in Korea, Manchuria and Mongolia. In the late 1930s, the Japanese Kwangtung Army, based in the then Japanese-puppet state called Manchukuo, launched major military attacks against the Red Army. At first, the attacks by the superior forces of the Japanese were successful. However, reinforced Red Army forces under the command of Lt. Gen. Zukov defeated the Japanese and subsequently forced Tokyo to initiate cease fire negotiations. In addition, defeat convinced the Japanese political and military leadership to aim the thrust of their future military operations towards China, Southeast Asia and the Pacific Ocean regions.

During World War II, the Soviets consistently maintained a large ground force in their Far East regions as military insurance against the possibility of attack by the Japanese Kwangtung Army based in Manchuria. However, as the fortunes of war continued to worsen for Germany, Japan and Italy it became only a matter of time before the Soviets would declare war on Japan. By August 1945, with the victory in Europe achieved, the Soviets massed a force of more than 1,000,000 well-equipped ground, air and naval forces against a largely depleted and demoralized Japanese Army in Manchuria. This was followed by a Soviet declaration of war on Japan and a nine-day campaign that overran Manchuria, North Korea, Southern Sakhalin and the Kuril Islands. The Northern Islands issue to this day remains a sore point in political relations between the two nations,[5] more so because of the recently expanded Soviet ground and air capabilities in the Southern Kuril Islands of Habomai, Shikotan and Kunashiri.[6]

The Soviet occupation and increased militarization of the Kurils have brought their naval, air and ground forces to within "walking distance" of Japanese territory. A military invasion of Japan would present the Soviets with a plethora of military problems:

• The Soviets would have to fight both the JSDF and U.S. military.

• U.S. conventional and nuclear forces can be launched from bases in Japan to attack the Soviet Far East Theater of Military Operations.

• They would be forced to maintain the bulk of their conventional and strategic forces in a defensive mode against the possibility of a Chinese preemptive attack.

• They do not have the military resources to fight both China and the U.S.

Any military invasion of Japan would require military resources the Soviets cannot expend. What may occur is that the Soviets would launch a limited invasion of Japan to secure passage lanes for transit of Soviet naval forces. The Soviets would rather opt for a neutral Japan; the closing of U.S. military bases in Japan; and a Soviet-Japan Treaty of Friendship and Cooperation.[7]

However, as Mr. Tetsuya Kataoka states in his article, *Japan's Northern Threat*: "Naturally once Japan was attacked and engulfed in a world conflict, everything including the constitution

> ## "The Soviet occupation . . . of the Kurils have brought their naval, air and ground forces to within 'walking distance' of Japanese territory."

would bow to the needs of survival, and given an adequate lead time, the Japanese may even show a good account of themselves."[8]

Reshaping of Japan's Defense Policy

Under former Prime Minister Nakasone there were trends towards increasing defense spending and developing a military posture that would enable Japan to play a more viable role in maintaining regional stability in Northeast Asia. This new Japanese defense emphasis was based on:

• The close personal and political alignment between Nakasone and President Reagan.

• Nakasone's willingness to be more assertive in the forging of international relations between Japan, her Asian neighbors and the Third World nations.

• The acceptance by the world community of Japan as one of the world's economic and technological superpowers.

• The fact that because of her superpower status, Japan must be pre-

pared to play a larger economic and military role in the maintenance of security for itself and the Northeast Asian region.

• Japan's national security interests are best served by maintaining and strengthening the provisions of the U.S.-Japan Mutual Treaty of Security and Cooperation.[9]

Defense by Consensus

There are advocates in Japan that favor doing away with the JSDF. Political groups favoring this course of action also desire the repeal of the U.S.-Japan mutual security treaty. At the other end of the Japanese political spectrum are groups that clearly favor a rearmed Japan and a return to the "imperial way." These groups believe fanatically that Japan can and must become a military power of the first rank comparable to the United States and the Soviet Union. In the middle are the moderate political parties represented by the Liberal Democratic Party (LDP), whose delegates presently control both houses of the Japanese Diet. The LDP advocates the policy of controlling the JSDF's force development in order to ward off the constant attacks by its political opponents. Despite constant domestic opposition, the LDP has been able to a large extent to keep defense spending within acceptable limits. The government of Japan's adherence to the five-year, long-range defense projections and the guidelines in the NDPO has made it possible to continue the qualitative growth of JSDF capabilities without significant quantitative increases.

This approach has many advantages because it allows for retention of the balance of power between Japan, China and the Soviet Union in Northeast Asia and lessens the credibility of those nations (Soviet Union, China and North Korea) who constantly accuse the Japanese of rearming and remilitarizing under the mantle of the JSDF concept. In addition, the current government of Japan policy also projects the intention of sticking to the principles of the "Peace Constitution" and to the U.S.-Japan Treaty of Security and Cooperation.

Japan's defense priorities feature an even more intensive defense partnership in terms of numbers and types of joint training exercises between the U.S. military and the JSDF. The gradual relaxation of constitutional restrictions would permit the JSDF to partici-pate in military training outside the home islands of Japan. An example of this "loosening" was the recent Rim of the Pacific naval exercises involving naval ships from the United States, Australia, England and Japan. There have been indications of increasing military contacts between Japan, the Republic of Korea and the People's Republic of China; the consistent upgrading of the capabilities of the Northern Army; a gradual expansion of Japan's industrial capacity devoted to the production of military weapons; and the beginning of a limited Japanese arms for foreign export market. Japan's future participation in the U.S. Strategic Defense Initiative Organization (SDIO) provides the Japanese and U.S. defense communities opportunities to participate in research and development using Japan's science and technology capability. Japan's SDIO participation expands and strengthens the overall defense relationship between the United States and the government of Japan. Continuation of the LDP as a majority party on the Japanese political scene ensures that present and future defense policies for Japan remain "on course."

Conclusions

In the next decade, Japan's defense program will continue to maintain the present balance in defense spending that neither violates the peace constitution nor strays from Japan's postwar defense posture. Japan will maintain the JSDF at current manpower levels while increasing its qualitative capabilities in terms of improved weapons systems. They will improve the monitoring and intelligence collection capabilities of the self-defense forces and strengthen the ability of the Northern Army on Hokkaido to defend that island effectively against a possible Soviet invasion. Logistical plans and procedures for the deployment of Japanese ground reinforcements and equipment from the other regional armies to Hokkaido will be developed. Japan will maintain and strengthen the U.S.-Japan Mutual Security Treaty for the indefinite future and further expand the ongoing exchanges between the military of Japan, the Republic of Korea and China.

Japan has the capacity to become a first-rate military power. Its industrial production allocated to satisfy defense needs is presently below one percent of its total capacity. Its science and technology infrastructure is enormous. However, it is currently totally oriented towards nondefense and commercial scientific endeavors. If Japan's science and technology capability were oriented toward the development of defense space and missile technology, it would attain almost the same level as the U.S. and Soviet missile/space programs.

Finally, if Japan were to increase its defense budget to two percent of its gross national product, it would become the world's third ranking military power. (Japan is currently ranked eighth in terms of ratio of defense spending to gross national product.) If she were to increase her defense budget to four percent, Japan would be nearing military superpower status.[10] ★

Footnotes

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Technology Transfer and National Security

As nuclear arms control comes increasingly to the forefront between the United States and the Soviet Union, applied technology within the conventional forces will become more important as one of the major factors in deterrence and in war fighting. As a consequence, high-technology conventional weapons and their associated systems are already escalating into a new form of arms race between the East and the West. The Soviets understand their value and are attempting to match the West in the technological development of their own weapon systems through a variety of ways.

by Maj. Neil D. Bute and
Maj. Paul C. Topalian

Because the United States exists in an interdependent world of almost daily technological breakthroughs, it cannot hope to place impenetrable barriers around its technology forever. Americans themselves benefit from the global free exchange of such advances. The *legal* transfer of technology throughout the world, to include the Communist Bloc nations, touches upon important economic, social and foreign policy interests. The *illegal* transfer of Western technology has serious national security implications for the United States and the free world. In fact, the prevention of illegally acquired Western defense-related technology by the Soviet-led Communist Bloc is one of our top national security objectives.[1] *Yet, it appears to continue unabated.*

For decades, Communist-sponsored trading firms, spies and complicit Western businessmen have been relatively unopposed while they profited from illegal sale of Western technology. Such business is often conducted in secret, and the culprits are rarely caught. Like the narcotics trade, the scope of the problem is statistically impossible to accurately assess. Also, like the narcotics trafficking, the present and future consequences of this illegal activity upon the United States and its allies are distressing.

From the perspective of national security, the implications are quite serious for our military commanders who are charged with defending the national interest. Whether in Europe or North-east Asia, American forces and their allies are outmanned and outgunned. The commanders depend on the West's technological edge to offset their adversaries' numerical advantage. Illegal technological transfer threatens to close the technology gap between East and West. Much of the transferred technology has military applications, and it is being used by the Communist Bloc to improve the operational capabilities of their own combat forces.

The Toshiba Scandal

Within the past months, newspapers and magazines have headlined the corporate scandal involving the Toshiba Corporation. Toshiba Machine, a subsidiary of its giant parent, was involved in a major transfer and sale of sophisticated milling machine technology to the Soviet Union. So sensitive was this technology and so embarrassing was the intrigue surrounding the sale that the presidents of Toshiba Machine and Toshiba Corporation resigned in humiliation. Now, the U.S. Congress threatens to ban Toshiba products from the United States. This could cost Toshiba billions of dollars in sales.[2]

The Toshiba sale involved highly technical milling machines which the Soviets needed to cut super-quiet propellers for their submarines. The loss of this technology to the Soviets seriously degraded our ability to track Soviet submarines, and we lost an important technology edge.

The Soviet interest in this technology began in early 1980 when the U.S. spy, John Walker, alerted the Soviets to the

> ## "The illegal transfer of Western technology has serious national security implications for the United States and the free world."

vulnerabilities of their submarines to Western undersea acoustic detection. Quite simply, their propellers were too noisy. The Soviets then began a worldwide search for more precise milling machines to produce quieter blades. They approached a small, Moscow-based Japanese trading company who acted as a middleman in the search. This firm, in turn, approached Toshiba Machine who was producing milling equipment comparable to that of U.S. submarine builders. The details were worked out between the Soviets and Toshiba. On April 24, 1981, a contract was signed arranging for the $25 million sale of four milling machines.

Toshiba Machine applied to the Japanese Government for a permit to export a relatively unsophisticated machine that was a legal export item. Japanese export officials did not realize that Toshiba actually shipped a far more advanced instrument. The shipments took place between 1981 and 1983.

The Konesberg Trade Company, a subsidiary of Norway's *Konesberg Vaapenfabrik*, was also involved in the collusion. It agreed, in consultation with the Soviets and Toshiba, to pro-

vide the computers and software that steer the cutting heads of the machines.

Konesberg also applied for an export permit to ship a simple computer to the Soviet Union and, when it came time to ship, substituted the more sophisticated hardware. About the time the first machines arrived in Leningrad, Konesberg shipped the associated software to Toshiba. In Tokyo, an unsuspecting Japanese businessman on his way to Moscow carried the software package to the Soviets as a personal favor for a Toshiba executive. Later, Toshiba and Konesberg technicians travelled to Leningrad's secret Baltic shipyards to install the machinery.[3]

The end result of all this activity occurred in April 1984. Five Soviet Victory Class III submarines successfully moved undetected to mock attack stations off the East coast of the United States. Unlike in past activity, the Soviet submarines were much more difficult to detect and to track. The intelligence community wanted to know why. An inquiry began and the Toshiba scandal emerged.

During the aftermath of the investigation conducted by both American and Japanese officials, Toshiba employees attempted to justify the diversion. They insisted other countries also violated the Coordinating Committee for Multilateral Export Controls (COCOM) laws in efforts to maintain sales in an ever-decreasing world market. Some of the Japanese remembered seeing, during visits to the Leningrad shipyard, submarine propellers being milled by a machine built by a French company. The existence of the French machines was later confirmed during the course of a separate French investigation.

Toshiba lawyers argued that their firm was being unfairly singled out since the United States had not banned British, French or German companies who had sold strategic equipment to the Communist Bloc. Nonetheless, Toshiba executives did purposely lie to investigators about the diversion and acknowledged destroying documents pertinent to the case on the orders of their superiors.

Marshal I. Goldman, associate director of the Russian Research Center at Harvard Univ., said that "no other single sale has so simply, quickly and identifiably damaged U.S. military strategy."[4]

The Helicopter Transfer

Despite all the controversy surrounding the Toshiba case and the U.S. Congressional threats against this company, corporate America has proven just as vulnerable to Communist exploitation and intrigue. Only recently have sufficient facts been reported to reconstruct a case which occurred between 1983 and 1984.

The case concerns illegal shipments of over 80 helicopters by an American company to North Korea. In many ways, this case parallels the Toshiba scandal. Although the Korean War ended in 1953, no peace treaty was ever signed with North Korea. U.S. trade with North Korea has been outlawed since 1950 under the Trading With the Enemy Act.

The initial press reports surfaced in 1985 when on February 2, the *New York Times* reported that the Commerce Department had evidence of an illegal shipment of 82 helicopters to North Korea.[5] Under initial investigation was an American helicopter company; Associated Industries of North Hollywood, Calif., owned by Ronald and Monte Semler; *Delta-Avia Flug-gerate* of West Germany and its manager, Kurt Behrens; and a West Berlin firm, *Spedition Killewald Expotrans*.

This case began in 1983 when the Semler brothers shipped two helicopters to a bogus North Korean trading company operating in Japan. At Yokohama, the helicopters were loaded on a North Korean freighter and transported to North Korea. These two helicopters were merely demonstration models for 85 (of a contract for 100) other planes that were to follow in 1984 through Europe.

The main shipment was loaded on a Panamanian ship in California and transported to Rotterdam, Netherlands, with U.S. export documents that fraudulently stated the destination to be West Germany. The helicopters were reloaded in Rotterdam on a Soviet vessel bound for Hong Kong. Once in Hong Kong, the shipment was transported to its true destination by a North Korean ship. While the sale was sensational enough from the perspective of its illegality, what is more significant is the intrigue surrounding the deal.

The Semler brothers operated a distributorship with a license to sell to Nigeria. Sometime before 1983, the Semlers were introduced to Behrens who managed another distributorship

in West Germany. It was at this first introduction that a relationship between Behrens and the Americans was forged.

Behrens was tied in a relationship with a covert North Korean trading company operating in West Berlin called *Spedition Killewald Expotrans*. Each day the North Koreans would leave their embassy in East Berlin, drive under diplomatic immunity to West Berlin and the offices of their bogus export business. In West Berlin, these men would purchase materiel that would have been impossible to obtain behind the Iron Curtain.

Western high technology was on the top of their list, to include sophisticated military-associated equipment such as electronics and spare parts for helicopters. In the evening these men would load their purchases into their automobiles protected by diplomatic plates and return to East Germany. This circumvention of the COCOM lasted several years until February 1986, when, in conjunction with the helicopter investigation, these diplomats were discovered and barred by American, British and French authorities from entering West Berlin.[6]

In 1985, two months before the Commerce Department opened the case, a North Korean spy defected to the West from East Germany and informed Western officials of the diversions.[7] *Spedition Killewald Expotrans* was the North Korean contact for Behrens who, in turn, passed the orders to the Semlers. The Semlers placed the orders with the American company. The U.S. export documents filed by the Semlers falsified the final destination of the helicopters as West Germany.

Although subsequent investigations have cleared the American helicopter company of involvement in the scandal, the entire case has proven an embarrassment. While the company was certainly aware of the increased sales of the Semler brothers, it claimed no knowledge of the diversions.

On January 21, 1987, the two Semler brothers were charged in a 27-count indictment handed down by a federal grand jury. Behrens was listed as an indicted co-conspirator. Because West Germany has no specific laws preventing the sales to North Korea, Behrens may very well escape criminal liability.[8]

International Efforts in Curbing Technology Transfer

Since the end of World War II, the

United States, 14 NATO nations and Japan have joined forces through the COCOM to restrict the flow of technology that possesses potential military applications to the Communist Bloc. Countries which have specific prohibitions against them include Cuba, Nicaragua, North Korea and the Soviet Union. But the system is under fire.

Today, the COCOM finds itself overloaded, underfunded, outdated and overregulated. As a result of the technology explosion in the West, the COCOM and national export agencies face an increased blurring of the distinction between military and civilian products and their uses. Additionally, the list of restricted items is exceedingly large in an era when state-of-the-art technology today will be mundane tomorrow.

While individual and corporate greed is a major cause of violations in exports, so are the overregulations in trade which breed cynicism and disregard of the controls. The international business community views such restrictions as frustrating sales in the competitive world of international markets. One recent study by the National Academy of Sciences estimates that in the United States, restrictions on high-technology exports cost American firms an estimated $11 billion annually in lost sales.[9] At the same time, friendly nation businessmen resent what they view as too much heavy-handed Washington influence to maintain cold war suspicions of the Communist Bloc in a time when many nations are trying to reduce tensions.

So the basic conflict exists between the international business community, including American businesses, and the Defense Department. The Pentagon wants to prohibit the export of advanced technology that possesses inherent military applications, while the business community wants looser controls across the board. Within the United States, the support for liberalization is gaining momentum, particularly in view of the need to maintain market shares to offset the trade imbalance.

Recent Trends Behind the Iron Curtain

The Communist economic system is in trouble. Making the choices of allocating scarce resources between the civil sector and the defense establishment is increasingly more difficult. The technology behind the automatic washing machine seems to elude producers; the technology of modern weapons does not. The system does not foster innovation; the state controls innovation by throwing scarce economic and political resources behind particular sectors and products.[10]

Despite their problems, in other areas the Soviets are about equal and closing the technology gap. In fact, a 1986 Joint Chiefs of Staff survey of the 20 most important basic technology areas placed the United States and the Soviet Bloc about equal in six and the United States ahead in 14 (Figure 1).[11]

In defense matters, the Soviets see their military parity with the United States at risk if the United States goes forward with the Strategic Defense Initiative (SDI). The Soviet response to this threat is to increase efforts at obtaining Western high technology while trying to put their economic house in order. General Secretary Gorbachev understands the scope of the problem he faces, and his recent effort to remedy the problem is called *Perestroika*. The success of *Perestroika*, the restructuring and revitalization of the Soviet economy, is dependent on two parts. First is the human dimension within the Soviet society; the need to increase productivity, quality control, services and innovation by the workers. Second is the technological side; the need to attract Western and U.S. know-how and equipment to the Soviet Union.

Both of these elements are essential for success if the Soviet economy is to grow. The first is an internal matter. The second — the acquisition of Western technology — should be of concern to the United States and its allies. It is inevitable that much of this technology will be put to use by the military defense and research establishment. Because of *Perestroika*, the legal and illegal flow of Western technology and production equipment to the East will likely increase over the next decade.

Equally disturbing is the fact that the U.S. production base is decreasing due to foreign competition, the trend of offshore manufacturing and the entry into service-oriented fields. This is happen-

RELATIVE U.S.-SOVIET STANDING IN THE 20 MOST IMPORTANT BASIC TECHNOLOGY AREAS*

		U.S. Superior	U.S.-Soviet Equal
1.	Aerodynamics		X
2.	Computer/Software	< X	
3.	Conventional Warheads		X >
4.	Directed Energy Laser		X
5.	Electro-Optical	X	
6.	Guidance/Navigation	X >	
7.	Life Science	X >	
8.	Materials	X >	
9.	Micro-Electronics	X	
10.	Nuclear Warheads		X >
11.	Optics		X >
12.	Mobile Power Sources		X
13.	Production/Manufacture	X >	
14.	Propulsion	X >	
15.	Radar Sensor	X >	
16.	Robotics	X	
17.	Signal Processing	X	
18.	Signature Reduction	X	
19.	Submarine Detection	X	
20.	Telecommunications	X	

* The arrows denote that the relative technology level is changing significantly in the direction indicated.

Office of the Joint Chiefs of Staff U.S. Military Posture for FY 1988 Source: Secretary of Defense Annual Report to Congress FY 1988

Figure 1

ing at a time when the Soviets are making efforts to increase investments in domestic production equipment. For instance, Soviet investment in machine technology is aimed at replacement of half of all capital in industries by 1990.[12]

In the command and control associated micro-electronics field, the Soviet gap in technology has narrowed from 10 to 12 years a decade ago to about four to six today due to illegal acquisition.[13] During the same time period, the U.S. global market share in the vital semiconductor field dropped from almost 100 percent to about five percent. Today, there are literally thousands of Soviet military items of equipment and weapons that have benefited or will benefit from the illegal acquisition of technology from the West. Additionally, Moscow is saving billions of rubles and thousands of man-years of research and development work in its electro-optics, armor and aviation industries.[14] These range from cruise missile guidance systems, ballistic missile warheads, anti-tank missiles and precision guided munitions to the aircraft steam catapult design that will be used in the launching system for the new Soviet aircraft carrier.

Conclusions

The United States cannot match the Soviet Union or North Korea weapon for weapon. Rather, it depends on technological superiority to offset numerical superiority. The U.S. technological edge affects national security in two ways. First, the economic health of the United States stems from the ability to exploit and adapt technology for industrial purposes. Second, the exploitation of technological advantage directly enhances its defense. For example, the technological edge in precision munitions helps offset the Soviet's large tank forces. Stealth technology helps to counter the massive Soviet air defense system. Advances in anti-submarine warfare technologies and in submarine quieting help preserve maritime superiority despite the Soviet Navy's numerical advantage. Perhaps most significant, U.S. computer technology and software has military relevance across the entire spectrum of warfare.

However, the Soviets are aware of the Western technological advantage and have undertaken a massive effort to acquire and exploit Western tech-

nology. The challenge to the West is to protect this technological edge by preventing its exploitation. It is obvious that the present system depends on the voluntary and multilateral cooperation of the COCOM community in order to restrict illegal technology transfer. It is also obvious that the system is in need of reform. The rallying cry both here in the United States and on the international scene appears to be "higher walls around fewer items."

Technology is moving too fast, and it is necessary to prune continuously the list of what is sensitive technology. By limiting the number of restricted items there could be more efficient enforcement with higher penalties than presently exist. At the same time, U.S. allies could perform an important service by establishing more stringent measures to ensure national security review of their commercial transactions with Communist Bloc countries.

The United States has recently announced measures designed to bring about needed reform in the COCOM. It has offered to eliminate all licensing requirements for the export of sensitive technology to its Western allies, provided they in turn tighten their controls governing the export of goods to the Soviet Union. The aim is to allow freer movement of products within the walls of the COCOM, even as those walls grow higher and harder for outsiders to reach over.[15]

Some other steps the United States is taking to inhibit the flow of sensitive technology include:

• Increased awareness programs that highlight the magnitude, tactics and detriment to Western security of Soviet efforts.

• Counterintelligence programs specifically targeting the technology transfer activities of hostile intelligence services sponsored by the Soviet Union.

• Soviet Bloc scientific-visitor controls designed to screen high security risk visitors and, in the process, strengthen the spirit and integrity of academic exchanges.

• Better review of government open publications in the pre-publication and pre-distribution phases.

The purpose of these measures is to create a more difficult operational environment for Soviet acquisition efforts, thereby making it more costly to the Soviet Union and its surrogates to exploit Western technology. The stakes

are high, but the West can do no less if it is to succeed in protecting its technology edge. ★

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Long Range
Reconnaissance

by Capt. Fred Joyce

Reconnaissance is defined as the act of reconnoitering. To reconnoiter is to inspect, observe or survey in order to gain useful military information about enemy positions, strength, composition and movements.

Development of a Need

The weapons early man used for battle were most probably developed for hunting. However, the techniques developed for this purpose may not have been needed to determine the outcome of conflicts between the earliest social groups. Most of these struggles were nothing more than ritualized brawls, often held at agreed upon locations. They were encounters designed to reduce bloodshed and decide disputes without either side losing face. When a social group decided to forgo the ritual and attempt to crush the enemy, reconnaissance must have been utilized in preparation for raids or ambushes.

When the ancient civilizations fought with organized armies, combat revolved around laying siege to fortified positions or fighting set-piece battles on open ground. An important decision for commanders then was where they wanted the battles to occur. They had to determine which terrain was the most advantageous to their army and the most disadvantageous to the enemy. Commanders sent scouts ahead of their armies to pick out routes of march and gain information on fortifications, enemy movements and composition. These scouts had to make the round trip to the objective and back as quickly as possible. If the terrain permitted, the commander would use cross country runners. More often they used scouts mounted on horses or in chariots.

Most of the European explorers of Asia, the New World and Africa were soldiers. They used the techniques of reconnaissance not only to chart unknown lands but also to subjugate the peoples they encountered. In vast wilderness areas, groups of irregulars were often drawn from the native population, colonists, trappers or traders to assist the European Armies. This practice continued to be used by the major European powers when they had to settle their colonial differences by force. The wars between the British and French in North America provided the American military heritage with the ranger tradition. However, the purpose of the ranger was as much to inflict damage on the enemy by ambush and raid as it was to reconnoiter and obtain intelligence.

In the Crimean War and the American Civil War, trench works were used to extend the defenses around fortifications and cities. This system of trenches of both the defender and attacker foreshadowed those of the extended front that developed in Europe during World War I. For a time, the extended fronts of World War I put an end to the traditional modes of military reconnaissance, especially for the cavalry. They effectively established a rear area on both sides about which opposing forces knew little except what they gained through espionage. Additionally, effective use of indirect artillery fire created a need for a new type of battlefield information. Though the artillery forward observer came into being, he was tied to friendly lines by telephone wire. One of the practices used to overcome this lack of reconnaissance ability was the use of observation balloons. Sometimes the observers were in communication with commanders on the ground via telegraph. World War I was also to see the first use of the airplane for reconnaissance behind the enemy's front line.

During World War I, a new tactic was developed by the infantry of almost all the participating armies. Small groups were sent to infiltrate the enemy's forward and supporting trench lines to obtain information for use by artillery or infantry. The German and Italian armies formed elite units to spearhead attacks by line infantry. They used infiltration tactics to eliminate crucial positions and disrupt command and control in the supporting trenches.

Between the world wars new developments in military reconnaissance included the creation of mechanized units that performed the traditional roles usually assigned to horse cavalry. When equipped with two-way radio communication equipment, reconnaissance elements could transmit their information to higher headquarters as fast as they obtained it. Much of the desert terrain and open southern flanks of the North African campaigns in World War II allowed long-range motorized elements to penetrate the enemy's rear area. But their purpose remained as much to bring combat to the rear areas as it was to gather intelligence. Most elite infantry, airborne and commando units formed in World War II were assigned combat missions when they were inserted behind the enemy's front. Information they may have gained on their missions was a secondary function in most cases.

World War II created a more demonstrated desire among political as well as military leaders to know about and operate in the enemy's rear area. One of the most powerful tools available to the military leaders was strategic bombing, usually on targets selected through air reconnaissance. The job of tapping sources of human intelligence in occupied territory was left up to the traditional espionage organizations. The military assisted in infiltrating agents by sea or air and in supplying arms, supplies and communication equipment

to partisans.

Much of the information obtained from the espionage organizations was useful to field commanders in preparing their plans for various campaigns, especially those that began with amphibious landings. Pathfinders and advanced landing parties helped to clear and mark drop zones or beaches. Once these operations were underway, division or corps commanders could normally see only as far as their most forward elements. Elite units trained to operate behind enemy lines often ended up plugging the gaps in the forward lines.

U.S. Marines reconnaissance battalions, the British Special Air Service (SAS) Regiment and the Royal Marine Commandos were some of the few elite units trained to operate in the enemy's rear that survived World War II. In the Korean War, the U.S. Army formed provisional ranger companies at division level. Their activities were usually confined to infiltration of the enemy's front lines rather than deep insertions into their rear areas for the purpose of gathering information. However, the Ranger Training Program developed in the 1950s became a proponent for developing long-range reconnaissance doctrine. In recent years the Special Forces have developed formal long-range surveillance training programs at Fort Bragg, N.C., patterned on those in other NATO countries.

Most of this doctrine was put into practice by Western powers in combating insurgents in the difficult terrain of Third World countries. The wars for independence in the colonies of the mid-20th century resembled those of colonial conquest in the 17th, 18th and 19th centuries. But the expense of fighting the more sophisticated insurgents, who were often aided by communist countries, with conventional firepower guided by elite reconnaissance teams was too great for Europeans still recovering from World War II.

These conflicts did provide an opportunity to develop the helicopter as a new tool of modern war. Helicopters became airborne platforms for weapons and reconnaissance that were more in tune with ground action than airplanes. The U.S. Army viewed them as a new type of cavalry. Helicopters became the most useful tool in inserting reconnaissance teams into and extracting them from hostile territory. To adapt the helicopter's talents to the modern conventional battlefield, pilots were taught to fly along the nap of the earth to avoid being acquired by enemy detection devices and weapons systems.

Operations in the Conventional and Nuclear Arenas

AirLand Battle doctrine emphasizes attacking the enemy's rear area in what it calls deep operations. Significant damage to the enemy's follow on combat forces, logistical elements and command and control by airborne and surface-to-surface weapons behind his forward line of own troops (FLOT) will influence the outcome of the total battle. To cause significant damage, good target acquisition must occur first. The same knowledge about the enemy's rear and follow on forces that is needed for effective deep operations targeting is also required in forming predictions of the enemy's intentions along his FLOT. This drives friendly operational planning for the support and employment of the forward maneuver elements to meet the threat posed by the enemy or exploit his weakness.

The mission of the ranger battalions is to perform commando-type operations, not reconnaissance. The expertise of Special Operations elements trained for insertion or infiltration into the enemy's rear for intelligence gathering purposes is not normally available to corps and division commanders. The corps and divisions are extensively equipped with electronic intelligence gathering equipment. Still, some corps and divisions have added long range surveillance companies to their combat electronic warfare and intelligence (CEWI) battalions and groups.

Teams from these companies may be left behind in concealed positions as the divisions and corps defend in depth or they may be inserted behind the enemy's FLOT by aircraft. Teams are being trained to infiltrate on foot 30 to 40 kilometers behind the enemy's FLOT. From good vantage points these teams can communicate over secure radio to their higher headquarters where their input is fed into the intelligence analysis and targeting processes at division/corps tactical operations centers.

In the field exercises I have been involved with in the past ten years, most infantry, armor and cavalry commanders up to divisional and corps level have been in the same position as their counterparts in World War II and Korea. They see the enemy through the eyes of their forward ground and air elements. When contact with the enemy is lost they must resort to costly reconnaissance in force or movement to contact operations. Well placed reconnaissance/surveillance teams, in secure radio contact can extend their vision into the enemy's first and second echelons. I believe that this asset should be provided down to brigade level.

Reconnaissance Operations in the Falkland Islands War

Western military establishments have had little firsthand experience in conducting actual reconnaissance operations in conventional situations since the Korean War. I believe the best and most recent example available for study occurred during the British campaign to retake the Falkland Islands in 1982.

The campaign can be divided into two phases. In the first phase the Argentinian Army was isolated on the Falklands by the Royal Navy. SAS surveillance teams were inserted onto the Argentinian Coast at locations from which they could monitor ship and aircraft movements and report them back to the Naval Task Force commander. Argentina's navy never seriously challenged the British blockade. While the Argentinian Air Force kept up attacks, it could not prevent the British from establishing a beachhead and advancing to attack Argentinian troop concentrations.

In the second phase, Royal Marine Commando teams moved out of the beachhead to detect any offensive moves by the Argentinian Army. When the British felt secure enough to move against the Argentinians, these teams concentrated on finding routes of advance through the difficult terrain and pinpointing Argentine positions. In one instance Argentinian scouts sent out to reconnoiter the British positions were neutralized by a British commando team who attacked them from a covered and concealed position into which they were inserted by helicopter. The British concluded the campaign by launching successful attacks against the main Argentinian positions, forcing them to surrender. Following the conflict, the SAS teams were successfully extracted from Argentina.

Clock Watching:

Using Soviet Reconnaissance as Indicators
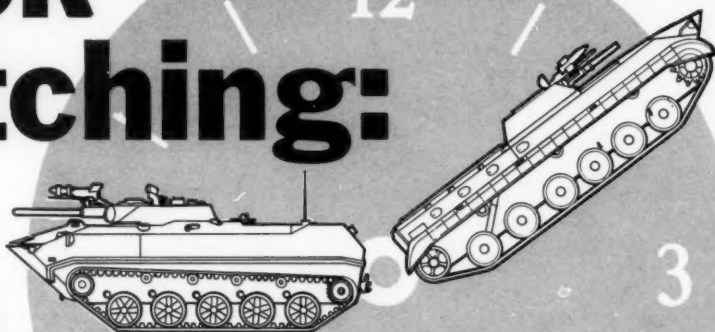
by 1st Lt. Keith A. Jacobson

Patrols of the Soviet division commander's reconnaissance battalion have identified an American mechanized infantry division on the march. The commander has employed one of the basic principles of tactical doctrine. He has conducted thorough and continuous reconnaissance and intends to strike the American enemy at their weakest: on the move. He plans to use the full speed of his force to surprise the enemy, catching them unprepared to defend themselves.

As the division's lead regiment reaches the main battle area, however, the commander's plan begins to unravel. Nothing has been heard from elements of the reconnaissance company that should have already reached the American column. As the combat reconnaissance patrol (CRP) reaches the enemy lead elements, they find not a column of forces on the move, but tanks, armored personnel carriers and improved TOW vehicles in defensive posi-

tions. The CRP is forced to break contact, but not before they suffer significant losses. The company-sized forward security element ten kilometers behind them is not properly warned and is also surprised and disrupted.

The Soviet commander lost the ability to surprise the enemy and control the time and place of the battle. He had come up against an American force whose lead elements were able to anticipate the timing of events. They subsequently made the best use of their time, ensuring that they would be in control of when and where the battle would take place.

In this example, the cavalry squadron in advance of the American division was able to interpret correctly their initial reports on the Soviet reconnaissance elements and plan their actions accordingly. Once elements of the divisional reconnaissance battalion had been positively identified, the frontline commander could predict the appearance of successive elements. He could deploy his forces to enter the battle.

In order to predict enemy movements

in terms of minutes, cavalry squadron and frontline battalion commanders must be able to recognize the appearance of divisional and regimental reconnaissance elements as key indicators.

Generally, a commander whose forces are in advance of a division will have either a screening or guarding mission. According to Field Manual 17-95, *Cavalry Operations,* "Units conducting a screening mission must provide early warning of approach, gain and maintain enemy contact and report enemy activity, and repel or destroy enemy reconnaissance units." Similarly: "A guard operation protects the main body from enemy ground observation, direct fire and surprise attack. The guard force provides early warning, reaction time and maneuver space."

In either a screen or a guard, the mission hinges on early warning. Increased warning by the forward force provides decreased risk for the main body. Early, accurate identification of the enemy's reconnaissance forces, therefore, not only blinds the enemy commander, but also indicates to the friendly commander the time and place

of likely enemy contact.

Soviet Organization

The key to predicting an enemy advance is thorough knowledge of his organization. A Soviet division in march formation will be preceded by groups or patrols of its organic reconnaissance battalion. These reconnaissance elements operate up to 50 kilometers in front of the division's main body. Twenty-five kilometers behind them are the lead regiment's reconnaissance elements. Ten to 15 kilometers behind these reconnaissance patrols, the lead regiment's combat elements begin to appear. They are led by a CRP; a motorized rifle platoon reinforced with engineers, movement support personnel and a chemical reconnaissance squad. This patrol attempts to penetrate the enemy's main body to determine his movement routes, composition, rate of movement and the NBC situation. It also identifies critical terrain for follow-on force commitment. Five to 10 kilometers behind the CRP is a motorized rifle company reinforced with a tank platoon, an artillery battery and other elements. This unit, called the forward security element (FSE), closes with the enemy and attempts to exploit weak points creating a breakthrough. If the FSE successfully penetrates the enemy defense, the remainder of the advanced guard, a reinforced motorized rifle battalion, exploits the breakthrough and prepares the way for the regimental and divisional main bodies. If the CRP, FSE or main body of the advance guard cannot penetrate the enemy defense or overcome resistance, they fix and hold the enemy to ensure successful commitment of the following elements against the enemy's flanks.

Within the Soviet division's organization for combat, the divisional and regimental reconnaissance elements play a critical role for U.S. commanders. The early recognition of these elements can allow commanders up to two hours advance notice (one hour in the case of the regimental reconnaissance) before the appearance of enemy combat forces. Because of the peculiar organization of Soviet reconnaissance elements, commanders and their intelligence officers (S2s) can easily recognize their appearance on the battlefield.

The reconnaissance battalion of a motorized rifle division contains two BMP reconnaissance companies, one scout car reconnaissance company and one company with radio electronic combat assets. Each BMP company consists of two platoons with three BMPs each and one platoon of three tanks. These vehicles operate in conjunction with the 12 BRDMs from the scout car company. Divisional reconnaissance forces work in groupings of two or three vehicles, either one BRDM and one BMP or one BRDM, one BMP and one tank. The divisional reconnaissance battalion is where tanks will normally operate as reconnaissance elements. When friendly troops sight tanks with BRDMs, they have most likely identified the division's reconnaissance forces. They must be aware of the situation, however, and positively identify the type of vehicle. Divisional reconnaissance groups may be as large as a reinforced company and may conduct raids or seize critical terrain in addition to reconnaissance activities.

The reconnaissance company of a motorized rifle regiment consists of one platoon with three BMPs and one platoon with six BRDMs. They operate 25 kilometers in front of the regiment in groupings of two vehicles; one BRDM with one BMP. Although BRDMs and BMPs also work together elsewhere within the regiment, the reconnaissance forces are distinctive by their unwillingness to become engaged. Soviet reconnaissance forces rely on stealth and mobility rather than firepower as protection.

Clock Watching

If a frontline commander or S2 recognizes the appearance of the enemy's reconnaissance elements on the battlefield, he can generally set his watch to predict the appearance of follow-on combat forces. In fact, a clock diagram placed next to the intelligence map board is an excellent graphic aid for planning the best use of preparation time. Using a clock diagram in conjunction with time phase lines will augment the S2's ability to predict time sequencing of pertinent events on the battlefield. When the S2 receives a confirmed report of one T-64 and one BRDM working together, he can safely assume that elements of the divisional reconnaissance battalion have most likely entered the battle. He can then check the time and mark his clock accordingly.

From there he can time-sequence when to expect follow-on elements to appear. If the original spot report came in at 0630, he can note on his clock that at 0730 his troops should report sightings of the regimental reconnaissance forces. This of course is tempered by weather and terrain constraints. He can also plan on seeing the CRP 20 to 30 minutes later. The forward security element should appear at approximately 0800, with the advanced guard at 0815.

Using this method, the cavalry squadron or frontline battalion commander knows at 0630 that he has 90 minutes to prepare before the first company-sized forces reach the battlefield.

Of course, when the S2 uses the clock model to predict enemy forces, he is assuming that his scouts see the divisional reconnaissance force as soon as they reach the battle area. While this may be a bold assumption, the S2 has at least given his commander some sort of planning factor. Once the regimental reconnaissance company appears, the timeline can be adjusted accordingly. By reacting and planning a timeline as soon as enemy reconnaissance forces are spotted, the S2 has given his commander the initiative and the ability to control the time and place of the attack. While he risks not being accurate to the minute, he avoids the far greater risk of allowing his commander to be caught unaware.

According to Field Manual 34-3, *Intelligence Analysis*, "The objective of intelligence during wartime is to reduce, and ultimately eliminate, battlefield uncertainties." For cavalry squadrons and forward battalions, the key to providing early warning is controlling the time and place of enemy contact. By correctly interpreting initial enemy sightings, commanders can gain the extra minutes they need to prepare for an enemy attack. A clock as a graphic aid allows the commander to visualize his preparation time. Thus, by using their knowledge of the enemy's reconnaissance, the commander and S2 can set their timeline early to plan the best use of their forces. ★

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Tactical Applications
for
Multispectral Imagery

by Lt. Col. Wayne D. Zajac and Capt. Dan Smith

The U.S. Army's light infantry divisions are designed for strategic deployability and rapid response to "trouble spots." The number and location of potential crisis situations is speculative, but even a cursory examination shows that the locations could range from Central America to the Philippines, Sri Lanka to Africa. Possible missions for the light infantry division, all in the arena of low intensity conflict, include counterinsurgency, foreign internal defense, peacekeeping and various contingency missions. A show of force or even a large-scale, civil relief operation would also be possibilities. History has proven that what is peaceful today may not be tomorrow; what is an unlikely mission today may see us deploying tomorrow.

A primary concern for the light division G2 in preparation for deployment is the area of operations and, in particular, the physical nature of the terrain. Many of the potential trouble spots have limited, outdated or nonexistent map coverage. Other related data is also lacking. Mission success dictates that other means be used to provide the information needed for intelligence preparation of the battlefield (IPB) products, terrain studies and operational planning.

The 29th Infantry Division (Light) recently encountered such a situation in Operation Mountain State, a field training exercise conducted in the mountainous terrain of West Virginia. The exercise featured a low intensity conflict scenario. The division deployed one complete infantry brigade supported by the division's reconnaissance squadron, the divisional MI battalion (CEWI), a forward area support team and aviation support. Unique to this exercise was the area of operations. It was unfamiliar to the participating units and was not part of any military installation. Maneuver areas were either portions of the Monongahela National Forest or adjacent leased land. Standard map coverage was limited, outdated and very difficult to obtain.

We found that multispectral imagery (MSI) could be effectively used at division level to compensate for deficiencies in map coverage, to obtain updated information on the area of operations, to produce nonstandard maps and for limited target detection. We also found that additional benefits of MSI are possible if certain computer equipment is available.

The System

The term multispectral is generally used to describe a system for the acquisition of remote sensing data in two or more spectral bands. A spectral band is a segment of the electromagnetic spectrum defined by two wave lengths, frequencies or wave numbers (figure 1). Multispectral imagery is the result of a multiband system which simultaneously observes the same target with several filtered bands, through which the electromagnetic spectrum has been split.

Multispectral remote sensing satellites (U.S. LANDSAT series and the French SPOT) were developed to satisfy civil requirements for data about the condition of the earth's surface, many of which translate into terrain analysis and IPB factors (figure 2). The current LANDSAT 5 Thermatic Mapper Sensor System has seven spectral bands (figure 3). Bands 1, 2 and 3 are derived from the visible portion of the electromagnetic spectrum. Band 4 senses information in the near infrared, bands 5 and 7 sense the short wave infrared and band 6 records thermal infrared information. The MSI user has size, shape, shadow, texture and spectral characteristics to provide information about an area of operations.

Exploitation Considerations

A number of considerations should be kept in mind about exploiting multispectral imagery; particularly, spectral and spatial resolution and method of exploitation.

Spectral resolution is the system's ability to detect discreet information within the electromagnetic spectrum (EMS). To illustrate, the French SPOT system has four spectral bands, compared with the LANDSAT 5 system which has seven bands. Therefore, LANDSAT 5 has a greater range of sensitivity to the EMS. In the visible part of the EMS, both systems have a sensitivity to the green region. SPOT has a range of .09 micrometers (from .50 to .59) but LANDSAT 5 has a range of .08 micrometers (from .52 to .60). The LANDSAT system, then, has a "finer" spectral resolution in the green region. In the near infrared (NIR) region, SPOT images at .79 to .89 micrometers, while LANDSAT 5 senses energy at .76 to .90 micrometers. SPOT has a finer resolution in the NIR band.

Spatial resolution is the system's ability to separate closely spaced objects on an image. A comparison of LANDSAT 5 (30-meter resolution) and SPOT (10-meter resolution in panchromatic, 20-meter resolution in its MSI bands) shows SPOT has a better spatial resolution. As with other technological tools, the user must decide which system is best for a particular application. The SPOT system is a better choice if spatial resolution is more important.

The last consideration is how one plans to exploit MSI. There are two choices: soft copy or hard copy. Soft copy is a computer-aided, geographic information system (GIS) type of exploitation. Hard-copy exploitation is what

presently occurs at most tactical levels, at which specialists use optics and light tables to analyze prints, film or transparencies. This consideration is important because soft-copy exploitation can allow a user to take full advantage of both spatial and spectral resolution. Soft-copy exploitation offers the flexibility for spectral analysis and the capability to merge MSI with other imagery to sharpen resolution. A soft-copy capability enables the user to change the spectral bands at will and use all aspects of the imagery. This capability has the potential to allow tactical units to combine MSI with Defense Mapping Agency (DMA) digital feature elevation or terrain evaluation data to provide elevation data to generate a perspective view. Perspectives could be used as a visual aid for identifying a drop zone or landing zone from a given altitude and distance. Perspectives could also be used to view friendly avenues of approach from the enemy's viewpoint.

Analysts from the G2 section, 29th Infantry Division, who were exploiting MSI as part of their MSI training course, were able to identify alternate drop zones. They specified to the computer the type of vegetation and soil moisture content that was desired and programmed it to search the image area for those characteristics. All suitable drop zone areas were displayed on the screen and printed out in minutes.

Hard-copy products usually combine three spectral bands per scene. These products can be scaled from 1:35,000 (with additional image processing) upwards. Essentially, the requested scale or band combination is the limit for exploitation. A few words of caution: The procedures to get hard-copy scenes require a lengthy request period and the band combinations must be specified in advance. This can greatly limit their usefulness.

Tactical Applications

MSI can contribute to the analysis of an area of operations. This analysis determines the effect on the enemy and friendly courses of action by a number of factors:

- Climate and weather conditions,
- Relief and drainage systems,
- Vegetation and surface materials,
- Man-made features,
- Military aspects of the area,
- OCOKA (observation, cover and concealment, obstacles, key terrain and avenues of approach) factors,
- Transportation and hydrography.

MSI is very useful in this analysis by combining or isolating different spectral bands. Better spectral resolution equates to more available information. The results of an MSI analysis, combined with open-source textual and available all-source intelligence, can give a commander an excellent appreciation of an area of operations.

For example, we used two false color composite prints of LANDSAT (one winter and one summer image) to prepare our analysis of the area of operations for the exercise. The winter scene clearly showed relief and drainage, major avenues of approach, the transportation network, man-made features and power transmission lines. The summer scene revealed the same, plus seasonal effects of the vegetation and hydrography. The summer scene also provided information on sparsely vegetated areas and swamps. A comparison of the two images helped identify coniferous from deciduous forested

ELECTROMAGNETIC SPECTRUM
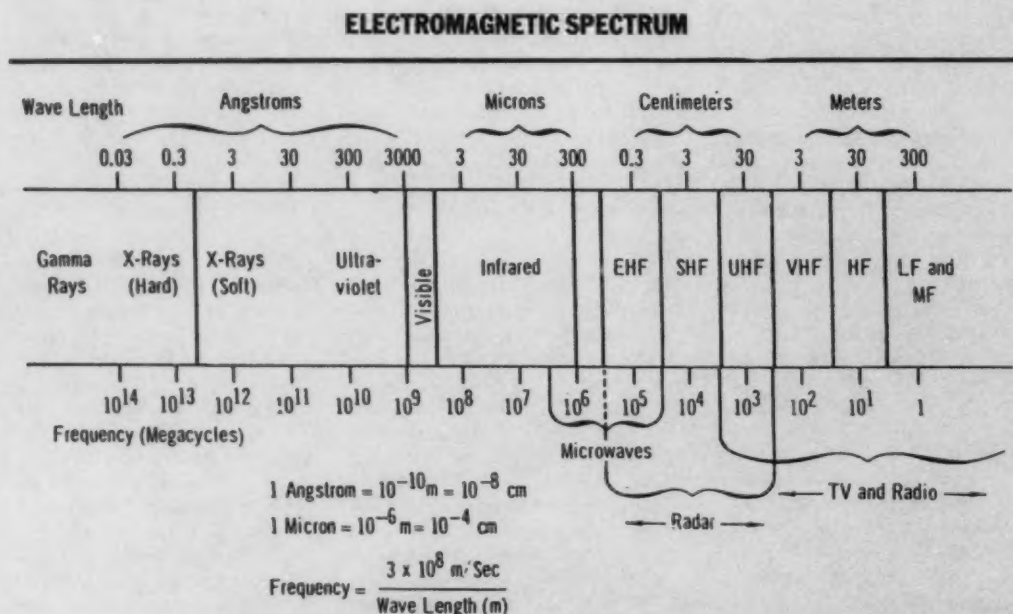
Taken from TM 30-245/NAVAIR 1035- 685/AFM 200-50

Figure 1

areas. This particular analysis supplied information on areas that would provide year-round concealment from aerial observation; areas that could be used as base camps or assembly areas. This was especially useful information, given the low intensity conflict scenario being played.

MSI hard-copy products can also be used as a map supplement or substitute. While planning for Operation Mountain State, we were asked if the Benbush Airstrip could be used for a forward arming and refueling point by the combat aviation brigade. The airstrip was annotated on one map and not on another. Referring to the two MSI scenes, we found that the airstrip existed. It was surrounded by patches of deciduous and coniferous trees, and its surface was bare soil with some low vegetation. To confirm this and to investigate possible landing zones, an aerial reconnaissance mission was scheduled. Human intelligence sources could also have been used for confirmation.

As previously mentioned, there was also a shortage of maps of the exercise area. We therefore coordinated with the 30th Topographic Engineer Battalion to produce a map that combined two U.S. Geological Survey maps with the MSI. The MSI updated the map sheet, while the line map provided elevation and contour information, place names and coordinate grids. This product was in a 1:100,000 scale and was prepared as a quick reaction project. There were two versions. The first version, black and white, proved unusable below division level. The second version, with red and blue added for easier use, was a great improvement.

This experience indicated that lithographic reproduction of MSI imagery can be done by topographic battalions, and that MSI can be used to update existing line maps or as a pictomap with a grid overlay, if necessary. For use below division level, however, some orientation is necessary, since most units are mostly familiar with standard DMA 1:50,000 products.

MSI is excellent for general coverage of an area. A single LANDSAT scene covers 185 sq. km. Tactical reconnaissance and national imagery can be correlated with MSI to provide a closer look (spatial resolution) of an area of interest. As with the Benbush example, information can be developed for planning and conducting long range surveillance patrols, air assaults and ground operations.

To summarize, tactical applications using MSI include:
 • Terrain analysis, referencing OCOKA factors;
 • Augmentation, update or substitution for maps;
 • Battlefield visualization (perspective viewing); and
 • Collection management.

Caveats

While MSI already offers great benefits to tactical units and, with the necessary hardware, could be of even greater utility, a number of caveats must be noted. First, trained personnel who understand MSI, can explain it to others and can technically exploit it are needed. The G2 sections in all divisions should have several officers and analysts with these skills. Based on our experiences, a two-week course would seem sufficient for soldiers and officers having an imagery intelligence background. In addition, brigade S2s (especially those assigned to aviation brigades) need a solid orientation on MSI and how to use the products generated from it. MSI products should not be disseminated to users below division level unless accompanied by a detailed analysis or, preferably, by an analyst who can explain the results and limitations.

Procurement

There is currently no centralized fund for purchase of MSI. Each unit must budget for its own requirements. Interested units should contact the U.S. Army Intelligence Threat Analysis Center, Imagery Division (ITAC/ID), (202) 863-3755 for detailed funding information.

The Defense Mapping Agency (DMA) is the sole authorized purchasing agent for Department of Defense users of MSI (both LANDSAT and SPOT). Army

TERRAIN FACTOR MATRIX

FUNCTIONS	Surface Configuration	Soils	Vegetation	Slope	Built-up Areas	Precipitation (Weather input)	Roads Trails	Hydrology
Observation FofF	■		■	■	■	■		■
Cover and Concealment	■		■		■		■	■
Obstacles	■	■	■	■	■			■
Key Terrain	■						■	
Ground Aves of Approach	■	■	■	■	■		■	■
Air Aves of Approach	■		■	■				■
Weapon Sites	■	■	■	■	■			■
DZ and LZ	■	■	■	■				■
Maneuver	■	■	■	■	■		■	■
LOC and MSR				■	■		■	■
Barriers and Fortifications	■	■	■	■	■		■	■
LOS	■		■		■			■
Comm Sites	■				■			■
EW Sites	■		■		■			■

LEGEND:
DZ-drop zone
FofF-field of fire
LOC-lines of communication

LZ-landing zone
MSR-main supply route
LOS-lines of supply

Figure 2

users should establish their accounts with DMA and furnish an information copy of the request to ITAC/ID. The DMA point of contact is Dave Lesher or Kae Johnson, autovon 287-2622.

The current procedure has problems. A unit can order a computer-compatible tape (CCT) or standard, hard-copy products. The option to purchase a CCT would not benefit most tactical users because they don't have the equipment to handle the tape for soft-copy exploitation. The hard-copy prints can be had in 1:250,000 scale. Most tactical users can use that scale, but 1:50,000 scale or 1:100,000 scale and internegatives should also be made available by producers for affordable lithographic reproduction by topographic engineer units.

Many of the civil, geographic information systems operate on personal computers. A unit using personal computers would still need to transfer the data from CCT onto disks. The U.S. Military Academy at West Point has developed software for MSI demonstration on Microfix and on Zenith 248 computers with enhanced graphic adaptors. A unit can either buy a civil system and a tape drive to convert the tape to disk, or use Microfix with the MSI software and purchase a tape drive to transfer the data from tape to disk. Microfix can be modified by switching two processing boards so that the system can run Apple PIPs MSI processing software. Apple PIPs is commercially available. Also, the MSI data must be transferred from 9 track tape to floppy disk.

LANDSAT version 4.3 is a software program for microbased MSI processing on a Zenith 248 or IBM personal computer. The program is designed to familiarize users with many standard procedures in displaying and analyzing MSI data. To get a copy of LANDSAT version 4.3, contact C2 Mug, Maneuver Control Systems Directorate, ATTN: AMSEL-RD-LC-MC, Fort Leavenworth, Kan. 66027-5600, and request Program M167.

These programs are introductions to basic image processing. They should not be considered for operational production. To discuss these programs and their capabilities, contact Capt. Tom Milo, Defense Mapping School, autovon 354-2978/3972 or commercial (703) 664-2978/3972. MSI training is currently included in their Terrain Analyst program of instruction. MSI instruc-

TM SPECTRAL BAND APPLICATIONS

BAND	SPECTRAL RANGE	PRINCIPAL APPLICATIONS
1	0.45-0.52 M Visible 30 Meters	COASTAL WATER MAPPING; SOIL/VEGETATION DIFFERENTIATION; DECIDUOUS/CONIFEROUS DIFFERENTIATION;
2	0.52-0.60 M Visible 30 Meters	GREEN REFLECTANCE BY HEALTHY VEGETATION
3	0.63-0.69 M Visible 30 Meters	CHLOROPHYLL ABSORPTION FOR PLANT SPECIES DIFFERENTIATION
4	0.76-0.90 M Near IR 30 Meters	BOMASS SURVEYS; WATER BODY DELINEATION
5	1.55-1.75 M Mid IR 30 Meters	VEGETATION MOISTURE MEASUREMENT; SNOW/CLOUD DIFFERENTIATION;
6	10.4-12.5 M IR (Variable) 120 Meters	PLANT HEAT STRESS MEASUREMENT; OTHER THERMAL MAPPING
7	2.08-2.35 M MID IR 30 Meters	HYDROTHERMAL MAPPING

Figure 3

tion is now included as part of the Imagery Exploitation Officer (35C) Course at the Intelligence Center and School. The point of contact is Mr. Jay Anderson, autovon 879-8767/821-5244, or commercial (602) 538-8767/533-5244.

MSI has applications to support Army requirements from low to high intensity conflicts. It can provide the commander unclassified imagery and can be combined with other imagery if available. The 29th Infantry Division (Light) is convinced of the utility of MSI. It can be used in a strategic sense to support area studies of potential operational areas. MSI can be used as an element in target folders, IPB, production or updating of maps and other intelligence resources. MSI does not presently have the timeliness to be a true tactical source of information. This could be overcome by providing soft-copy exploitation devices to a division with the necessary equipment to produce paper and film based, hard-copy products. Development of a multispectral sensor suitable for tactical air reconnaissance on manned or unmanned aerial vehicle platforms could benefit the tactical commander. ★

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Capt. Dan Smith is the collection manager for the 29th Infantry Division (Light). He graduated from Marquette Univ. School of Journalism in 1975. Commissioned in the National Guard in 1980, he attended the Military Intelligence Officer Basic and Tactical Intelligence Officer courses. He has worked as an imagery analyst for the U.S. Army Intelligence Threat Analysis Center and currently works in the Office of the Deputy Chief of Staff for Intelligence.

Briefing in the
Military Intelligence Corps

by Capt. Michael Sands

Capt. Smith rushed down the hall and managed to enter the briefing room after having dropped his viewgraphs in the hallway. He was nervous because he had hastily prepared for the briefing and was not sure of his presentation. He rushed through the material, stumbled over the words and read his viewgraphs verbatim. The captain also failed to answer questions directly and confused his audience when he tried to explain himself.

As soldiers and leaders in the Military Intelligence (MI) Corps, we are required to provide information. Primarily, we brief senior officers or inform subordinates. In many cases, we have to give oral presentations with little preparation time but with a maximum requirement for detail and precision.

The ability to speak effectively before a group of persons is a critical leadership skill for members of the MI Corps. It is through effective speaking, briefing and communicating that we demonstrate leadership skills, influence others and support mission accomplishment.

President Franklin Roosevelt understood and applied the principles of effective speaking to move his audience to action. President John F. Kennedy used his public speaking skills to inspire the United States to land a man on the moon. Lee Iacocca was extremely effective in persuading members of the federal government, management and labor to join him in saving a major automobile company.

During World War II, there was seldom enough time for all command levels to be thoroughly informed as to every operation within their jurisdiction. Delegation of authority was expected to compensate for the inability of commanders to know everything needed for the conduct of specific operational plans. Yet, the delegation of authority did not relieve the commanding officer and his staff of responsibility. As a result, the commander would request a briefing from his subordinates. During the briefing the sub-

> **"It is through effective speaking . . . that we demonstrate leadership skills."**

ordinates were expected to summarize and present conclusions. They were also expected to abstract the essential elements of the information to give the commander information necessary to make a command decision. The briefing became such a valuable technique that after the war the term and the activity were adopted by the business and professional world.[1]

Today, the briefing is not a summary but is the result of a process of researching, selecting and condensing material that culminates with a short informative talk. *A good briefing is clearly presented, covers the subject matter thoroughly and is delivered with authority and poise.*

There are several steps necessary to the preparation and delivery of an effective presentation:

- Determine the objective.
- Analyze the audience.
- Prepare and organize the contents.
- Use visual aids and presentation techniques.

Determine Objective

Knowing the type of presentation you are to give will drive how it is prepared and delivered. Preparation and delivery for a briefing to inform are

> ## "Keep in mind what you want to happen as a result of your presentation."

quite different from preparation for a briefing to motivate to action or reach a decision. The audience must be aware of the objective of the presentation. There have been occasions where an information briefing has resulted in a requirement for a decision.

Analyze the Audience

The next step, audience analysis, is overlooked by some and done in a cursory manner by others. The presentation has to be expressed in terms of the self-interest of the audience. Otherwise, the audience will not be motivated to listen. Once again, the objective of the presentation must be kept in mind during this phase. It is important to determine the general background of the audience. Perform an analysis of the audience based on that backgound, and determine what information and techniques would be more effective.

As you analyze the audience, keep in mind what you want to happen as a result of your presentation. Do you want to inform or persuade? Do you want to change an attitude or behavior or gain approval?

The professional background of the audience will determine their frame of reference for the presentation. The familiarity with your specific organization's operation and activity may affect how the subject is presented. The vocabulary of the audience can be critical, especially if the presentation requires the use of jargon or language common to your organization but not to the people attending the briefing.

After collecting background information on the audience, analyze their knowledge and opinions of the subject, their reasons for attending the meeting and the advantages and disadvantages of the presentation's objectives to them as individuals. Once the analysis has been made, select techniques to establish rapport with the audience.

Now that the audience has been analyzed, gear the presentation to the situation in which the presentation will be given. For instance, if a briefing is

given after lunch, it is best to give a shorter presentation with less technical information. If the briefing is only one of several that have been scheduled, then the pertinent information should be given first followed by the analysis.

Develop the Briefing

Briefings must have an introduction, body and conclusion. How each of these sections is prepared will determine how the speaking objective will be met. Depending on the situation, the makeup of each major section of the briefing may vary. For instance, in decision briefings or other briefings requiring action or immediate attention, the inverted pyramid approach is favorable. In the inverted pyramid approach, the conclusion is presented first, followed by an analysis of the facts.

The introduction should state the objectives clearly so that the audience will know exactly what will be covered. Also, background information about the subject should be included, along with an outline of the main points to be covered. The introduction of the main points should lead directly into the body of the presentation. It is useful at this point to use a bridging statement to smoothly transition from the introduction to the body, where the main points are explained in detail. When appropriate, use examples, illustrations, facts and figures. When moving from point to point, use a transition phrase or sentence to flow smoothly into the next thought or point.

The conclusion summarizes the main points and, in some cases, should result in requesting some form of action. Let the audience know you are arriving at the conclusion. When done effectively, the conclusion should give the audience the essence of what was presented to refresh their memory. An audience should be able to recognize the essential details you have discussed without having heard the presentation. In a briefing requiring a decision or approv-

> ## "Nervousness before giving a briefing can actually help you."

> ## "When using visual aids, ensure the audience can read them."

al, the speaker should recommend the specific type of action or decision required.

When organizing the briefing, a decision must be made about the method of presentation; with a script, with notes or without notes. There are advantages to each method. With a script, the information can be clearly outlined and presented. A script offers a ready source for referral if you are questioned about your material. On the other hand, speaking with a script can be cumbersome for the speaker as well as the audience. The speaker can lose his place or have minimal eye contact with the audience. Using notes gives the speaker the flexibility to tailor his material to the audience during the briefing, as well as maintaining good eye contact. However, notes do not provide a complete written account of the presentation in the event the speaker is challenged. Speaking without notes is the most difficult way to give a briefing. If the subject is technical in nature, then the accuracy of the speaker's material might be questioned by the audience. The speaker, in any case, will need to choose his words carefully to ensure the audience will understand his message.

Word selection is important to the effectiveness of the briefing. When speaking, it is always best to use a short word instead of a long one, a simple term instead of a clumsy, ambiguous one. For example, don't say "utilize" when "use" is simpler, or "terminate" when "end" is better. The creation of new words using endings such as "sizing," "ability" or "wise" should be avoided. Examples of words with added endings include terms such as "functionability," "randomize" and "costwise." Some speakers may feel such terms are effective, but the opposite is true. It can easily confuse the audience and raise unnecessary questions.

Visual Aids and Presentation Techniques

Visual aids can greatly enhance a

presentation if used properly and effectively. The aid should be used as a support, and not a substitute, for the speaker. Use simple visuals with minimal detail. When explaining complex subjects, break down the subject into simple processes or steps. The visual aids should be easily seen by everyone in the audience. Make sure this is possible before the presentation begins. Use color to highlight important points. Most importantly, ensure that visual aids are neat and clear. The visual aid should be selected to suit the occasion. Flip charts and chalkboards are more effective for smaller audiences and are best used when you want to show limited amounts of information. The slide projector is useful to larger audiences, especially with color illustrations. The overhead projector is one of the more flexible aids available to the speaker. It can be used effectively with nearly any size audience, can display color and can be used to add handwritten information during the briefing.

When using visual aids, ensure the audience can read the material. Printed pages of text should be avoided. As a guide, words printed on a viewgraph should be one-quarter inch in height for every 20 feet of distance from the viewer. Allow the audience time to study the material and be sure you are not blocking their view. Once you have planned where each visual aid fits into the presentation, prepare a verbal transition to introduce it. The impact of the visual aid on your presentation is increased when your words are carefully coordinated. Do not read the visual word-for-word: nothing can be more insulting to the audience.

Practice for Excellence, Deliver with Impact

When giving the briefing, display poise and confidence. Preparation can increase confidence tremendously. Once the topic has been researched and organized into an acceptable format, rehearsal is the final step. Practice

"Any gesture that calls attention to itself is not a useful gesture."

"When speaking, it is always best to use a short word instead of a long one."

the wording, with any gestures or visual aids, just as if you were giving the briefing. Gestures can be used to give emphasis to important points. Hands and arms can rest at the sides or hold notes. Gestures can be used to point out details on visual aids or to illustrate ideas. When using a pointer, avoid gesturing with it. Keep it at your side when not in use. Any gesture that calls attention to itself is not a useful gesture. It is important to remember key words, concepts and phrases, but avoid memorization. Nothing can cause a speaker more anxiety than forgetting one or two words in a memorized presentation.

Nervousness before giving a briefing can actually help you. Just before the presentation, find a few minutes for quiet, slow, relaxed breathing. Be physically relaxed, and walk to the podium slowly. Then, as you begin to speak, channel your nervous energy into the briefing. This energy can be used to add force to your presentation. Say the first words of the briefing slowly, clearly and loudly to be sure each member of the audience can hear you.

Thinking on Your Feet

Being asked to elaborate on a subject during a meeting without prior preparation is impromptu speaking. Ironically, the best way to ensure success in impromptu situations is to prepare ahead of time. Prepare for meetings by researching material on subjects for which you may be asked to provide information. Do this on a regular basis for projects for which you are responsible. Anticipate the types of questions that may be asked. When answering questions, use the inverted pyramid. Present the bottom line up front, followed by an analysis of the facts. If the bottom line is enough to answer the question, which is usually the case, stop there. It is unwise to assume someone wants all the background when a simple answer will suffice.

During a question and answer period, the audience has an opportunity to interact with you to get further clarifica-

tion or information. Allow the audience time to formulate questions. If you have the answer, answer briefly, fully and as specifically as possible. However, if you don't have the answer, admit it. It is better to research the question later and get back with an answer than to give wrong information.

Conclusion

The ability to speak publicly, whether formally in briefings or informally to a group of peers or subordinates, is a vital leadership skill. The techniques presented can be used in a variety of speaking situations with some modifications. The important factor is that MI Corps personnel prepare for any speaking situation by observing and applying the guidelines for the development of effective speaking habits.

Speaking skills should be consistently developed and maintained through research and practice. There are several references on effective speaking in libraries and book stores that give useful tips on improving speaking ability in all types of speaking situations. Practice can be obtained by joining clubs where members are asked to present prepared or impromptu speeches. Participation in such a program can result in greatly improved speaking skills.

Because of our continuous mission in both peace and war, it is incumbent upon members of the MI Corps to improve their briefing techniques and their ability to think on their feet and answer questions on the spot. Through use of the above information and a personal program for effective speaking, members can be Always Out Front. ★

Footnote

1.Harold P. Zelko and Frank E. Dance, **Business and Professional Speech Communication** (New York: Holt, Rinehard & Winston, 1978), p. 229.

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A Guide to Effective

by James G. Patterson

There are many reasons to learn how to give an effective speech. One good reason is that speaking in public or on the job is critical to success. Several surveys of college graduates show that they consider the ability to communicate the single most important skill for job success — whatever the field. Whether you're in uniform or are a civilian, the more you are called upon to deliver briefings, the more you will be required to be an effective speaker.

Many people realize the importance of speechmaking but are reluctant to speak because of fear. Fear of public speaking is much more common than you might think. In a survey published in *Psychology Today*, the number one fear of American adults was the fear of speaking in public. Fear is something that comes from tackling the unknown. But, fear can eventually be controlled through practice.

General Qualities

You can overcome speech anxiety through careful planning. Before starting the crucial planning process, the speaker must have (or be willing to acquire) four general qualities: Integrity, knowledge, sensitivity to listeners' needs and sensitivity to the speaking situation.

Military briefings are given for two basic reasons: to inform or to obtain a decision. How do people sort out good analysis from bad analysis, prudent from imprudent recommendations? Ultimately, they make decisions by deciding whom to trust. If you have a reputation for being reliable, your effectiveness as a speaker will increase.

Good speakers know their subject. Never speak on something until you have thoroughly researched and developed your material.

The most successful speakers are "other directed"; that is, sensitive to the needs and requirements of the listeners.

Successful speakers must be good at analyzing speaking situations. In most cases the briefing audience is composed of superiors and important guests of the military. Know what the listeners require, how formal your presentation should be and who the listeners are. Once you've considered the aforementioned requirements, prepare the presentation. This includes establishing a purpose, preparing an outline, presenting the speech, using visuals and, of course, overcoming the fear of speaking. Keep in mind that those being briefed generally want to be informed in a limited time.

Establish a Purpose

The first step in planning any speech is to define your purpose. It will help to focus your efforts. There are two kinds of purposes, general and specific. Since a briefing should be a concise presentation of facts, the purpose statement should describe what you want to accomplish. After you've finished your speech, the same statement will help you know if you reached your goal.

A speech may often have elements of both general purposes. A good specific purpose statement should answer the following five questions:

- Who will be in the audience?
- What do I want my audience to do?
- How do I want them to do it?
- When do I want them to do it?
- Where do I want them to do it?

A good specific purpose statement combines all of these elements into one sentence. As a speaker, you won't achieve your purpose if you don't have a goal in mind. Specific purpose statements are measureable and realistic. Your goal should be attainable within the available time and resources, and it should be appropriate for its intended audience.

Now that you've established a general and specific purpose, you need to develop the speech thesis. The thesis is a single sentence that summarizes your message. Once you have a thesis, every

other part of your speech should support it. The thesis gives your audience a clear idea about what you're trying to tell them. A speech without a clear thesis at the beginning will have an audience asking, "What's this briefer trying to say? What's the point?" Once an audience begins asking these questions, you've lost them, and it's hard to get them back!

A thesis is often different from a purpose statement. Remember, the purpose statement is a note to yourself on what you want to accomplish; a thesis statement tells your audience your main idea as simply as possible.

Preparing the Outline

Select and organize the contents of the presentation. Organization of a message is critical to whether it is understood by your audience. A garbled message isn't easy to follow. A poorly organized speech damages the speaker's credibility. Finally, an unorganized speech is frustrating to listen to. Every organized presentation should have three parts: the introduction, the body and the conclusion.

The introduction should take 10 to 15 percent of your presentation. It is in this short period that an audience will decide to accept or reject your information. An effective introduction should have a greeting, the thesis statement and a preview of the main points that will support the thesis.

The thesis statement presents the main idea of your speech. This is followed by a quick preview of the main points that will support your thesis. This provides listeners with a "road map" of your speech. You shouldn't try to cover too much in a speech. A five to 10-minute presentation should have two to five main points; any more than that are too difficult for listeners to keep track of. Arrange your main points in a logical sequence, and support your points with factual information.

The body should fully develop the main points you mentioned in the introduction. There are several ways to organize the body of a presentation.

The first way is to organize the body chronologically. Here your points are organized around time. A good exam-

Speechmaking

ple would be a talk on a historical subject such as tracing the events leading to the battle of Gettysburg.

A second way to organize the body is spatially. This pattern organizes material according to physical location. A good example would be an oral tour of a military post.

A third method uses a cause and effect pattern (certain events have to happen or will happen as a result of certain circumstances) or an effect and cause pattern (the present condition and what caused it).

A topical approach is a fourth method. Here, you organize your main points in a manner that an audience can easily grasp. For instance, a speech explaining the benefits of a military career might be topically organized around the training and education available, travel opportunities and retirement benefits (all with specific and concrete examples).

A fifth possible way to organize the body is through the problem-solution method. This is best used when you are proposing some kind of change. Describe the problem, then show how your plan will solve it. Again, be as specific and concrete as possible.

Two other methods may help you organize persuasive speeches. They are the comparative advantages approach and the criteria satisfaction approach. The comparative advantages method lets you compare the benefits of several approaches and then suggest the best alternative. The criteria satisfaction method lets you set up a list of criteria an audience will easily accept and then show how your idea or proposal will meet those criteria. These two methods are widely used by intelligence analysts when briefing threat intelligence and subsequent courses of action to commanders.

Various verbal supporting methods can be used by the speaker to clarify, amplify and strengthen the thesis or bottom line. You can explain (using specific instances), illustrate (using factual or hypothetical examples), compare and/or contrast and use statistics.

A few final tips on developing the body of the speech:

- Make sure all points relate to and develop the thesis.
- Try to keep to no more than five main points. Listeners have trouble keeping track of any more.
- Have one main idea for each main point. Combining or overlapping ideas only confuses the listener.

The conclusion should be even shorter than the introduction. Within that short time frame, you must provide a review of the main points, a restatement of your thesis, make a closing statement and clarify any questions. A strong close will make your audience remember you and your message. Several of the methods used in an opening statement can be used for a close. You can refer to the theme of your opening statement and give it a new angle or twist, appeal for action or end with a challenge.

Presentation

The four methods for presentation of a speech are extemporaneous, impromptu, manuscript and memorized.

The preferred method of delivery is extemporaneous. It is planned and rehearsed in advance but not word for word. A good extemporaneous speech will never be the same twice. The best way to give an extemporaneous speech is to use note cards or a short outline. Remember, your notes should be legible, brief (one idea per card) and not noticeable to the audience. Whatever you use for notes, rehearse using them. Nothing hurts your credibility more than losing your place.

A second method of presentation is the impromptu talk. The off-the-cuff manner of the impromptu is inappropriate for the planned speech. Nonetheless, there will be times when you may be asked to speak about a subject within your expertise but with very little time for preparation. An impromptu speech will go well if you follow these rules:

- Present a definite view early. Let your audience know your main idea or thesis as early as possible.
- Present facts, logic or reasons to support your viewpoint. Since you haven't had time to prepare, you won't have as much support as you would if

you had prepared. Whether you use statistics, facts, examples or comparisons, any supporting material will help make you more informative.

- Do not apologize. This is good advice for the extemporaneous speech, too. Nobody will feel sorry for you. If you have nothing to say, say nothing. Don't talk for the sake of talking. Make your point, support it and close your mouth.

There are two other methods of delivery but, for the most part, they should be avoided. They are the manuscript presentation and the memorized presentation. Many people try to mask their nervousness by reading a manuscript. Even if it's read perfectly, a speaker will have difficulty sounding sincere and maintaining credibility. The biggest problem with memorized speeches is that they sound memorized. It's hard for a speaker to easily adapt to handling audience situations or questions if a speech is memorized.

Visual Aids

People remember what they both see and hear. One good way to help your listeners remember your message is through the use of visuals. Here are several tips on using visual aids:

- Make sure everybody can see and read the visuals.
- Keep one main idea per visual.
- Use title phrases for each visual (not Chart One, Viewgraph 3, for example).
- Show the aid while talking about it. When you want attention directed back to you, remove the aid.
- Talk to and face your audience, not the visual.
- Don't use too many visuals. Visuals should enhance a speech, not take it over.
- Rehearse using visuals. Practice until you can use them smoothly. Make sure the equipment works and is set up ahead of time. Anticipate what could go wrong and make contingency plans. For instance, bring a spare light bulb!

Overcoming Fear

The famous newscaster, Edwin Newman, once said, "The best public speakers realize it's all a matter of preparation and the right attitude. The only difference between pros and novices is that the pros have got the butterflies to fly in formation." A professional

Coalition Warfare

ESSAY

by Lt. Col. Edward L. Constantine, Jr.

The thought of the U.S. Army conducting operations with forces from other nations against a common aggressor gives some U.S. and allied commanders nightmares. The following observations should assist intelligence and electronic warfare (IEW) planners in helping their commanders rest somewhat easier at night.

Perceived Problems

One of the most significant problems facing the IEW planner is the language difference between U.S. and allied units. In a worst case scenario, both U.S. and allied forces will be fighting a common threat with a different language, such as non-East German Warsaw Pact forces. At best, both U.S. and allied forces will be fighting threat units that speak the same language as the allied forces, as is the case with U.S. and ROK units in Korea. However, even then it is likely that the only linguists available in U.S. units will be a few MI personnel. These personnel will, in all probability, be used as interpreters instead of signals intelligence (SIGINT) collectors or interrogators. The allied units may not have qualified personnel who can speak adequate English.

This language problem is compounded by existing cultural differences. In many countries, the status of the officer corps is such that they may be unwilling to work with junior U.S. officers, warrant officers or enlisted personnel. U.S. and foreign military personnel also frequently harbor nationalistic or xenophobic feelings that translate into overt or covert criticisms. These attitudes can cause friction between allied military personnel working in a combined operation.

Differences between the operational or tactical doctrine of U.S. and allied units cause other concerns. These doctrinal differences reflect technological and financial bases; levels of civilian education and military schooling; and histories and geopolitical positions vis-a-vis the specific threat nation. In any given combined operation, one or more of these factors may be present.

Many countries do not emphasize a sophisticated SIGINT/electronic warfare or imagery intelligence (IMINT) capability — both of which tend to be the U.S. Army's intelligence specialties. On the other hand, many of these same nations place greater emphasis on a sophisticated and comprehensive human intelligence (HUMINT) program. These nations have created long-range reconnaissance units, counterintelligence homeland reserve/police/paramilitary forces and an extensive civilian reporting network limited only by the sophistication of the countries' communications networks.

The emphasis on SIGINT and IMINT in place of HUMINT between the U.S. units and the allied units could effect the ability of the two forces to conduct coalition IEW operations, unless measures were taken to exploit the relative advantages of the combined forces'

unique IEW systems. Compounding the problem of IEW doctrinal and structural differences between the U.S. and the allied units are the different communications equipment and reporting mechanisms used by both forces.

Another major problem is the restrictions on the sharing of intelligence reporting. Political differences may result in the production of two versions of possibly divergent intelligence on the same subject — one for internal consumption and one for release to the allied forces. Whether these restrictions are based on differing security clearance policies, operational security concerns or national pride, they could have a serious impact on coalition IEW and other combat operations.

Suggested Solutions

The most effective technique to minimize the language problem is prior planning. For peacetime exercises such as REFORGER, TEAM SPIRIT, AHUAS TARA and BRIGHT STAR, the IEW planner can ask for Individual Ready Reservists, Reserve Component unit members or personnel from nondeployed Active Component units to serve as interpreters/translators. However, early identification of interpreter/translator requirements is mandatory in order to deal with such issues as reservist employment conflicts, security clearances and the long lead time required because of Reserve Component drill schedules. For wartime, the IEW planner can ask for the mobilization of reservists already on the unit's Vertical Army Authorization Documents System as individual mobilization augmentees or ask for linguist augmentation from the U.S. Army Intelligence and Security Command units in the theater. However, in both cases, the U.S. linguists will most likely be MI personnel who, although perhaps qualified as linguists, will be limited in their knowledge of U.S. or threat IEW or tactical doctrine. This shortfall can be offset somewhat by providing the U.S. interpreters with training on the allied nation's culture and military organization.

An alternate solution is for the IEW planner to request that the allied nation provide English-speaking personnel and allied communications equipment to the division/corps tactical operations center support element (D/CTOCSE). However, even this solution can result in some difficulties. The allied unit may send personnel whose command of the English language or whose familiarity with the allied unit's IEW system is not adequate for effective liaison.

The IEW planner can organize an augmented D/CTOCSE by acquiring properly cleared, English-speaking allied-nation intelligence personnel to work together with the unit's collection management and dissemination and all-source production sections. This represents the reverse of the combined all-source intelligence centers supported by U.S. MI personnel in the combat support coordination teams that are attached to various ROK field armies and corps.

The planner could also arrange for allied-nation personnel to work with the supporting MI unit's counterintelligence and prisoner of war interrogation teams and with the corps/division technical control and analysis elements (TCAE). At a minimum, the IEW planner could request properly cleared, English-speaking allied-nation intelligence personnel to work as desk officers in the G2 operations area of the C/DTOCSE. This concept of a combined TOCSE allows for the U.S. headquarters to maximize its ability to exploit the allied nation's intelligence reporting. It ensures the G2's intelligence collection and reporting requirements can be properly expressed to allied major subordinate commands (MSCs) or to a combined or allied higher HQ and facilitates dissemination of U.S. unit-produced intelligence information to the allied/combined headquarters.

A complementary technique would have the corps/division G2 send language-qualified intelligence liaison officer (LNO) teams with dedicated communications to the allied MSCs, to adjacent allied corps/divisions or to the combined/allied higher HQ. The intelligence LNO team, as a component of the U.S. unit's overall liaison cell, would assist its allied counterparts in understanding the U.S. commander's intent and in formulating and responding to requests for intelligence. The most significant service these LNO teams can provide is to pass to the G2 information on the enemy situation in the allied unit's area of operation/interest and to facilitate the flow of U.S. collected information to the allied unit. This last function is critical, as many foreign armed services do not practice combat reporting in the same manner that we do.

The concept of combined C/DTOCSEs and intelligence LNO teams is a costly one. The IEW planner should consider formalizing the LNO team concept by creating positions in the unit's modified table of organization and equipment for individual mobilization augmentation LNO personnel. When not needed, these personnel could be listed as authorized but not required. When the deployment warning order arrives, these line numbers would be changed to authorized and required. Otherwise, the IEW planner must be able to acquire the services of nonauthorized U.S. augmentees or be willing to take personnel and equipment from his own G2 staff or the command's supporting MI unit to fill these LNO slots. Despite the costs, intelligence reporting from the allied units makes the intelligence LNO effort a worthwhile investment.

The theater IEW planners and TRADOC can institute programs for allied personnel to receive training on U.S. IEW doctrine and for U.S. personnel to study allied doctrine. This training can be provided by appropriate exportable training materials or by formal classroom instruction, either in CONUS or at an OCONUS location. Alternatively, the theater intelligence planner and the division/corps G2 can arrange to have U.S. doctrinal references and SOPs translated into the allied nation's language and vice versa. These translated materials can be provided to both countries' forces prior to hostilities, if practicable, or at the beginning of the combined operation. References and SOPs should also be made available to the G2 intelligence LNOs, to the allied units' headquarters and to the allied augmentees

to the division/corps G2 operations D/CTOCSE and TCAE.

The theater IEW planner should also arrange for combined training exercises to the greatest extent possible. Allied-nation personnel should be encouraged to participate with the U.S. division/corps in CONUS or OCONUS command post exercises and field training exercises. Specific IEW interoperability goals should be included in the overall exercise objectives. U.S. personnel should be allowed to observe or participate in allied-nation exercises. Familiarity with each others' doctrine and SOPs will contribute greatly to maximizing the effectiveness of combined IEW operations.

Intelligence Sharing

The formal mechanism for intelligence sharing falls under the purview of AR 380-10(C), *Department of Army Policy for Disclosure of Military Information to Foreign Governments*. However, this regulatory procedure often is cumbersome and certainly is inappropriate for the conduct of tactical operations. What is needed is action by the theater IEW planner to coordinate, before the war, appropriate memoranda of agreement between the various U.S. national intelligence agencies and the allied nation to allow for the sharing of intelligence information. Like NATO and ROK/U.S. releasability regulations, these memoranda must be shared. Categories for consideration might be situation and target development information and SIGINT technical data. The memoranda should also describe the mechanism(s) for the sharing to occur. This could be done formally, through a single combined intelligence office to the coalition forces or informally, through normal command, control, communications and intelligence channels. The logic of sharing tactical or operational information is sound. What is more problematic is the determination, by the U.S. and allied governments, of what may NOT be shared and what would be the operational shortfalls of not being able to provide such prohibited NOFORN information.

Conclusions

The U.S. Army will unlikely conduct many more unilateral military operations. The norm will be greater levels of combined/coalition warfare. It, therefore, is crucial for the Army (and specifically the MI Corps) to identify the organizational and operational implications of conducting combat operations with allied forces and to develop procedures to improve bilateral intelligence collection, processing and dissemination. To do otherwise is to invite disaster. ★

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R𝗑 for Target Value Analysis

by Maj. Philip J. Millis

Target value analysis (TVA) is the U.S. Army's method-ology for establishing target priorities. Because it is based on a target's value to the enemy commander's mission objectives, TVA represents an innovative depar-ture from conventional thinking. Results of the first TVA appeared in the Fire Support Mission Area Analy-sis (FSMAA), published in late 1980. Early acceptance by maneuver commanders in Central Europe (for whom the original TVA was conducted) was somewhat slow. Despite repeated treatment in fire support field manuals, it was not until 1984, when the U.S. Army Intelligence Center and School at Fort Huachuca, Ariz., dedicated five pages of FM 34-1, *Intelligence and Electronic War-fare Operations* to TVA's role in the intelligence target development process, that the methodology came to be treated seriously by many outside the fire support community.

Despite formal acceptance, however, the published results of TVA continue to be underutilized by those final arbitrators of tactical technique, the field users. Although a variety of explanations might be offered for this fact, the four most frequently heard complaints about the 1980 European TVA were that it was awk-ward to use, overclassified, unflexible and confusing.

Today, TRADOC is growing increasingly concerned that unless, and until, wider acceptance is won for the results of TVA, the process could remain just a clever, but rarely employed, novelty. The following material will explore each complaint in turn and recommend cor-rective actions which should be considered for action either at the TRADOC or Combined Arms Center level.

As anyone who has ever handled the FSMAA can attest, the document is indeed bulky and awkward to use, particularly in the confines of a tactical command post carrier. Those responsible for recommending target-ing priorities have to fumble through the book, find the correct target spread sheet, spread it out on a flat sur-face, and follow the crossing lines leading from the rela-tive worth matrix to the attack rationale column. (Figure 1)

Should any consultation be required, such as modify-ing the TVA recommendations to conform with existing battlefield conditions, the user would have to refold the spreadsheet, carry the FSMAA to a conference area and repeat the process. After a few such episodes, the user becomes inclined to leave the document behind, reason-ing that a standard list of target priorities (for example, NUC/CHEM, C^3, maneuver and fire support) will suffice for exercise purposes. Such an approach, while obviously shortsighted, is nevertheless an increasingly common practice in the field today.

The second complaint, that the Central European TVA results are overclassified and require special han-dling, is also well-founded. The very fact that the docu-ment is stamped SECRET NOFORN virtually guaran-tees that field operations will be disrupted when one or more members of the maneuver operations team have to clear the area while the document is in use. Add the additional markings of RESTRICTED DATA, and the TVA results are virtually condemned to a lifetime of dust-gathering at the bottom of some safe in the S2's vault.

The complaint that TVA is inflexible echoes an often heard criticism that the methodology offers little more than a "cookbook" solution, that does nothing to accommodate the commander's right to accept, reject or modify the recommendations of his staff. What is the staff to do if the commander happens to disagree because the target priorities seem wrong for his particu-lar situation? And where in the attack sequence should "command directed" targets be placed? If TVA is sup-posed to show us how to fight smarter, there should be a consistent way to deal with such everyday questions.

Lastly, even after the user has located the information he requires, current TVA results are sometimes so ob-scure as that their usefulness is questionable. A case in point is the attack rationale column. Two typestyles are used to indicate the targets that should be attacked sequentially and those whose relative value remains constant throughout the operation. But when are con-stant valued targets to be attacked? And what role, if any, does target value play in target attack sequencing? The TVA results don't say. Thus, at the very point where TVA should show its real utility, the user is left in a quandary and more than ever inclined to dismiss the utility of target value analysis.

Answers to these problems are not really difficult, but require a higher level of concern for the user's needs than has thus far been shown. The following recom-mendations could be implemented at minimal cost but with a potential for very high return:

• An obvious solution to the first problem would be for TRADOC to reissue the European TVA results as a document separate from the FSMAA to reduce its bulk. A second approach might be to make the European TVA an integral part of maneuver, fire support and intelli-gence and electronic warfare decision support software now under development. Automating TVA recommen-dations could result in a significant savings in both access time and occupied work area.

• The subject of document security classifications, on the other hand, is a very sensitive one, particularly in light of the espionage arrests and trials of the recent past. Although the TVA spreadsheets are themselves only classified CONFIDENTIAL, the accompanying target sheets carry a SECRET NOFORN label that severely restricts the document's training value. I am hard pressed to identify what led the document's authors to assign any classification to the spreadsheets at all. Was it the high value categories, their relative

values, the recommended attack sequence? I suspect that no single item by itself is classified, but that someone felt the spreadsheets might be CONFIDENTIAL "in the aggregate." In short, the spreadsheets urgently require a classification review aimed at easing user/trainer access.

• As to being inflexible, the TVA results would clearly benefit from guidelines for accommodating the commander's wishes. A simple expedient would be to revise the attack rationale column (which tells why a high value target set is important) to explain the target set's attack sequence placement. For the notional situation depicted in Figure 1, the rationale might explain that reconnaissance elements are targeted first because they arrive in the target area early to survey proposed crossing sites and estimate the level of enemy (US/NATO) opposition. Maneuver assets, on the other hand, might be scheduled somewhat later because their elements will not attempt to establish a bridgehead until C[3] assets have evaluated the reconnaissance report and decide to proceed. Providing guidance of this sort for each target set, whether deemed high value or not, would enable planning staffs to accommodate the commander's guidance and make solid recommendations based on doctrinal norms, rather than on hunches.

These suggested fixes will mean little, however, unless prioritization guidance is made clear to the user. To achieve this goal, one must consider what the developers tried to convey by using different typefaces. More than likely, they were attempting to suggest that the user should realize that a target category's relative value is influenced not only by the situation but by time as well.

Figure 2 depicts how target values might vary over time, where the attack rationale for reconnaissance, surveillance and target acquisition (RSTA) and maneuver categories would appear in plain type and for fire support in italics. More importantly, the figure suggests a solution to the typeface problem: the conduct of many military operations can be divided into distinct phases. For example, Soviet/Warsaw Pact doctrine for planning hasty river crossings calls for dividing that operation into approach and assault phases. RSTA elements are
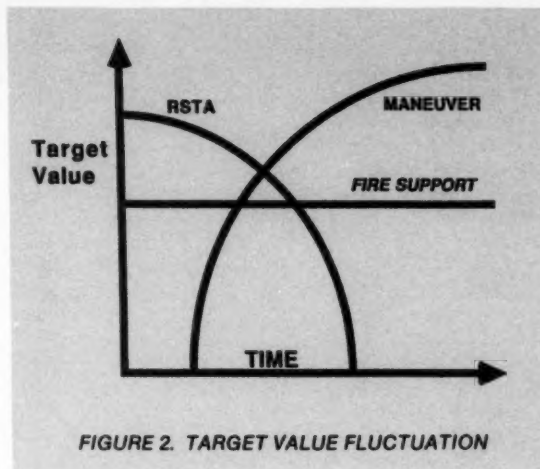

FIGURE 2. TARGET VALUE FLUCTUATION

very active initially and might be scheduled very early in the approach phase and not at all in the assault. Fire support could be scheduled by its relative worth (active level) in both phases. If a hasty river crossing consists of more than one phase, might not the same hold true of other tactical operations? The answer, of course, is YES.

A quick review of FM 100-2-1, *Soviet Army Operations and Tactics*, the Army's "definitive source of unclassified information on Soviet ground forces," shows that all but two of the Soviet/Warsaw Pact tactical situations addressed in the FSMAA are conducted in multiple phases. The confusion that arises from the use of plain and italicized type can be resolved by revising the TVA results to present attack schemes that reflect activity-based targeting priorities for each phase of a given operation. With this approach, the italics disappear and the user is left with easily understood recommendations, based on the opponent's own tactical doctrine.

When TVA was first introduced, many of the U.S. Army's tactical planners were elated to finally have a tool which truly promised to show our commanders and staffs how to "fight smart." Seven years have now passed, time enough for the methodology (and its results) not only to have gained the formal acceptance of the tactical community but to have won the approval of more than a minority of field users as well. If TVA is flawed, its blemishes are superficial and correctable. The shortcomings cited above are not an indictment of the methodology but a plea for assistance so that TVA may more quickly come to be recognized for what it is . . . a truly significant advance in the combat arts. ★

FIGURE 1. NOTIONAL TARGET SPREADSHEET
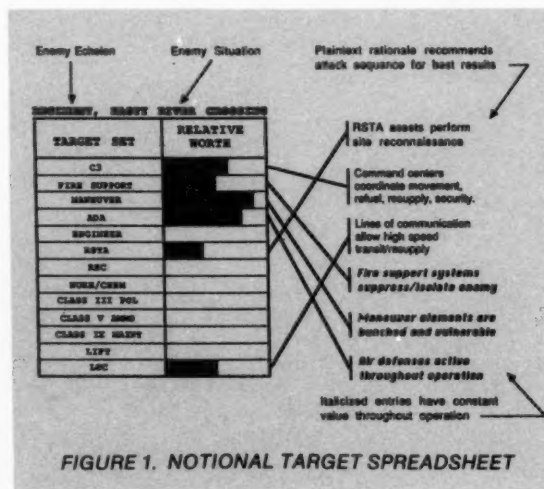
Maj. Philip J. Millis, USAR, is assigned to HHD, 3d Brigade, 70th Division (Training) in Fort Wayne, Indiana. He received bachelor's and master's degrees from Colorado State Univ. and a master's degree from Boston Univ. Millis works as Manager, Defense Systems at the Magnavox Decision Support Applied Center of Excellence and is an honor graduate of the Command and General Staff College.

BEAR TRAP

resistance or its support.

Time, in the long run, is on the Soviet side. As long as they do not "lose," they will "win," for they or their chosen regime will maintain power. As in all guerrilla wars, however, the conflict is not over until the last guerrilla is dead.
★

Footnotes

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3. H. T. Hayden, "Antiguerrilla Warfare Soviet Style," *United States Naval Institute Proceedings* (November 1983), p. 119.
4. Anthony Arnold, **Afghanistan's Two Party Communism** (Stanford: Hoover Institute Press, 1983), p. 116.
5. "Russia in Afghanistan," p. 36.
6. Anthony Hyman, **Afghanistan Under Soviet Domination 1964-1983** (New York: St. Martin's Press, 1982), p. 177.
7. James H. Hansen, "Afghanistan: The Soviet Experience," *National Defense* (January 1982), p. 22.
8. "Russia in Afghanistan," p. 34.
9. Thomas T. Hammond, **Red Flag Over Afghanistan** (Boulder: Westview Press, 1984), p. 161.
10. Hansen, p. 21.
11. Paul Trottier, "Afghanistan: Five Years of Occupation," *Department of State Bulletin* (February 1985, vol. 85, number 2095), p. 32.
12. Joseph J. Collins, "The Soviet Invasion of Afghanistan: Methods, Motives, and Ramifications," *Naval War College Review* (November/December 1980), p. 58.
13. "Russia in Afghanistan," p. 33.
14. Joseph G. Whelan and Michael J. Dixon, **The Soviet Union in the Third World: Threat to World Peace** (Washington: Pergamon-Brassey's, 1986), p. 85.
15. Trottier, p. 32.
16. Richard M. Weintraub, "Afghans Use U.S. Missiles," *Washington Post*, January 18, 1987, p. A1.

Drew Allan Swank is a cadet in the U.S. Army Reserve Officer Training Corps at Georgetown Univ., Washington, D.C.

RECONNAISSANCE

Conclusions

Reconnaissance has always been an integral part of planning and directing offensive and defensive operations successfully. In the 20th century the extended front has created a tremendous need to know what the situation is in the enemy's rear area. In the U.S. Army, we have provided corps, division and, to some extent, brigade commanders the electronic and airborne tools to conduct a reconnaissance of the enemy's rear area. We should strengthen this by providing them with the visual and analytical assets possessed by properly equipped and trained reconnaissance elements. Failure to do so means poor direction of deep operations, risking unnecessary losses in the infantry, armor and cavalry elements who will fight the main battles along the FLOT. ★

My thanks to Lt. Col. Walter M. Loendorf, Commander, 2d Battalion, 112th MI Brigade (TNG), Fort Devens, Mass., for his updated information on the provisional reconnaissance companies recently formed in USAREUR.

Capt. Fred Joyce enlisted in the infantry in 1970 and served in a rifle company in Vietnam. He was commissioned as an infantry officer upon graduation from the Univ. of Massachusetts. He has been a rifle platoon leader, mortar platoon leader, rifle company executive officer and a staff officer at the battalion, brigade, division and corps levels. Joyce is currently a staff officer at the U.S. Army Intelligence School at Ft. Devens, Mass.

SPEECHMAKING

has the fear of speaking under control simply because he's done it so many times. Here are some suggestions on how you can get the "butterflies flying in formation":

- Rehearse aloud. Listen to yourself.
- Make sure your notes are legible and in order.
- Get familiar with the area in which you'll be speaking. Check the equipment.
- Practice focusing on your main point, not on how well you are doing.
- Visualize the worst thing that can happen to you and ask yourself whether you can survive it.
- Try to anticipate hard questions. Can you answer them either in the speech or afterwards?

- Try to improve the weakest part of your presentation.

Opportunities for Speaking

There are many opportunities to hone your speaking skills. Never turn down an opportunity to speak. Local civic organizations are always looking for speakers. Ask your local public affairs office about company and military speaker's bureaus. Make contact with the local college. You could guest lecture or even teach a class. In almost every city or town there are local clubs that offer instructions and practice in public speaking.

Conclusion

To summarize, the speaker should have integrity and knowledge and have sensitivity to listeners and speaking situations. Following this, the speaker should establish a general and specific speech purpose, prepare an outline (including an introduction, body and conclusion), decide on how to present the speech (the preferred methods are extemporaneous and impromptu) and use visuals to enhance the presentation. Finally, know that fright can be conquered.

Hugh Blair clearly expressed the need for speech training when he said, "Speech is the greatest instrument by which a person becomes beneficial to others." ★

For Further Reading

1. R. Adler, **Communicating at Work** (New York: Random House, 1983).
2. C. Carlile and A. Daniel, **Project Text for Public Speaking** (New York: Harper and Row, 1987).
3. D. Ehninger, et.al., **Principles of Speech Communication** (New York: Scott, Foresman and Company, 1986).
4. G. Plimpton, **When You Have to Get Up and Give a Talk** (Waterford, Conn.: Simon and Schuster, 1986).
5. For more information on speaking groups contact Toastmasters International, 2200 N. Grand Avenue, Santa Ana, Calif., 92711.

An active public speaker, James G. Patterson is an Education Specialist with the Communicative Skills Office, U.S. Army Intelligence Center and School, Fort Huachuca, Ariz. He has a bachelor's degree in journalism and political science from the Univ. of Arizona and a master's degree in communications from Eastern Michigan Univ. Patterson is a doctoral candidate in higher education at the Univ. of Arizona.

USAICS Notes

INTELLIGENCE MUSEUM FOUNDATION MEMBERSHIP APPLICATION

The purpose of the foundation is to:

Establish a memorial to the honor and memory of the men and women of the Military Intelligence Corps.

Create and provide a public national museum at Fort Huachuca.

Acquire and preserve the records of individuals and units.

Collect, preserve and display items of historical interest pertaining to the Military Intelligence Corps.

Provide facilities for scholars, researchers, historians and students at the Intelligence Center and School.

(Detach here)

USAISD Notes

Threat Briefers

Recent terrorist attacks on American civilians and military personnel have made the American public aware of the terrorist threat. When terrorists strike at American citizens, we realize that everyone is a potential target.

SFC John Powers and SFC David Merrill of the 112th Military Intelligence Brigade, Fort Devens, Mass., have developed and implemented a program to educate people on how to protect themselves against such attacks. Powers and Merrill have extended their program into the civilian sector.

The program was started three years ago by Powers, who was an instructor in the Advanced Noncommissioned Officer Course. He volunteered his time to continue some of the briefings because there was a need to inform students about the interaction of military intelligence occupations. Classified briefings on the Soviet and Korean threat were extended to advanced individual training and Basic Noncommissioned Officer Course students. The program was then expanded and incorporated into the warrant officer courses, reserve units, National Guard units and to any companies upon request.

Realizing that terrorism and the communist threat also affect the civilian population, Powers and Merrill con-

ducted unclassified briefings at high schools and colleges.

Both soldiers have a strong personal conviction to inform their audiences about the threat. Both men critique each other on a constant basis, determining the relevance and effectiveness of the material they present. Changes and improvements are made accordingly. When briefing the civilian sector they wear civilian clothes and carefully avoid military jargon. They find that briefing civilians is an interesting challenge because as intelligence briefers they rarely get the opportunity to step beyond the uniform and reach those at the unclassified level. They also feel that speaking at other installations helps unite the service branches. The interservice questions and discussions promote camaraderie and understanding. Critique sheets from personnel who receive the briefings say that the threat briefs are informative and positive. The size of the audience doesn't matter; the dissemination of the message does.

In Power's opinion, winning the next war will not depend on superiority of technology, but rather on how well we know the threat.

Staff Ride

Breyman's redoubt in Saratoga, N.Y., is more than just a historical museum site. Its primary purpose is training future Army leaders.

Recently, officers from the 112th Military Intelligence Brigade, Fort Devens, Mass., took a staff ride to the site as part of their Officer Professional Development training. Although this was the first staff ride for the 112th officers, it is not a new phenomena. In the late 1870s, battlefield sites from the American Revolutionary War and the Civil War were established for the education of the nation's military. The first staff ride was conducted in 1906 by Maj. Eben Swift to the site of the Battle of Chickamauga for students of the Command and General Staff College at Fort Leavenworth, Kan.

Since that time, the staff ride has been a valuable educational tool for the professional development of Army leaders. It is used primarily to expose students to the dynamics of battle, especially those factors which interact to produce victory and defeat. The purpose of the staff ride is to foster an awareness that while technology has changed the way battles are fought, many factors have remained the same.

One of the points emphasized about Saratoga was how intelligence played a part in the battle. The British had poor operations security and no counterintelligence. The Americans knew where the British were and when they were going to attack. By forcing the British to fight on their terms, where they wanted, the Americans were able to win their first major battle. The lesson for the officers of the 112th was that the wise use of even the most rudimentary intelligence about the enemy and the terrain led to American victory.

Officer Notes

West Point Instructor/ Tactical Officer Duty

The United States Military Academy is seeking academically qualified officers to teach a wide range of academic subjects and serve as tactical officers for West Point's Corps of Cadets. Approximately 200 faculty vacancies occur each year with openings in all the arts and sciences. Although there are some positions for field grade officers possessing advanced degrees, the majority of positions are filled by captains. Selected officers will pursue a master's degree at a leading graduate school for up to 24 months and then teach for three years at West Point.

Candidates should be outstanding soldiers who display a capacity for intellectual growth as shown by such indicators as strong GRE scores. Company grade officers should plan their careers to make sure that they are branch qualified by completing advanced course schooling and a company level command or equivalent assignment. Interested officers must be in their fifth year of service and have the necessary credentials to pursue a master's degree at a quality graduate school.

It is a goal of the Academy to have a faculty mix of USMA graduates and graduates of other institutions with appropriate female and minority representation. ROTC and OCS graduates from over 200 different universities have served as superior role models at West Point.

Because of these objectives, the Academy offers an excellent opportunity for outstanding officers to achieve a master's degree in a wide range of disciplines and teach in a most challenging environment. Selectees will join a distinguished group of Army leaders who have not only molded the leaders of tomorrow while at the Academy, but have also made significant contributions to the Army and the nation in subsequent assignments. Former instructors regard their interaction with cadets as one of the most rewarding phases of their careers. These officers have consistently exceeded Army-wide selection rates for promotions and schooling.

For additional information, interested officers should write to:

Superintendent, United States Military Academy Attention: MAAG-PM West Point, New York 10996-5000

Language Notes

The Defense Advanced Language and Area Studies Program

The Department of the Army (DA) has recently announced that funds are available to sponsor the Defense Advanced Language and Area Studies Program (DALASP) for academic year 1988-1989.

The DALASP is a Defense Intelligence Agency training program designed to promote the development of language skills and area expertise, with emphasis on selected regions of the Third World. It provides opportunities for participants to attend training programs in foreign languages, area studies or similiar activities which improve language competence, area knowledge or intelligence-related skills. Within DA, the DALASP is open to active component (AC) and civilian personnel. The DA DALASP Program Manager (DPM) is located in the Office of the Deputy Chief of Staff for Intelligence (DAMI-ISS).

Military participants in the DALASP incur a three-for-one (three years additional service for every one year of training) service obligation and follow-on utilization tour in the language/area studied.

For purposes of this program, the Third World is defined as the Arab world (Middle East and North Africa, including Turkey and Iran), Sub-Saharan Africa, South and Southeast Asia, Central Asia (including Mongolia, Siniiang and Tibetan regions of China), Soviet Central Asia (excluding parts of the Federated Soviet Socialist Republic), the People's Republic of China and South and Central America.

DALASP programs consist of both language training and area studies or only language training. Priority of language training is to indigenous, local language/dialects of the above Third World regions. However, German, French, Russian or Japanese may be studied if it relates to scientific and technical research purposes or to exploitation of literature in those languages which deal with the Third World (for example, historical references by former colonial administrations or scholarly works).

Language training may be at the basic, intermediate or advanced/specialized levels and may be either short-term or long-term. Short-term language training generally includes approximately four to 12 weeks of intensive courses at governmental, academic or commercial institutions, including summer courses or workshops at civilian universities. Other short-term courses may include sessions at the Defense Language Institute, Foreign Language Center (DLIFLC), the Foreign Service Institute (FSI) or specialized commercial activities. Long-term training generally runs for six months or longer, especially in those languages which require extensive training to develop adequate skill levels. Possible sources for this training may include DLIFLC, FSI, commercial activities or a recognized foreign language and area studies center specializing in a selected region.

Upon completion of the DALASP language training, the expected language proficiency level is a Defense Language Proficiency Test score of 2, with the ultimate goal of scoring a level of 3. Area studies may include undergraduate or graduate courses such as international relations/political science, sociology, etc. While such courses normally will be academic credit courses, and may lead to a degree, DALASP

The 1987 Military Intelligence Writer of the Year

The editorial staff of *Military Intelligence* is pleased to announce that Maj. Arthur T. Coumbe has been selected as the Military Intelligence Professional Writer of the Year, 1987.

Coumbe's article, "German Intelligence and Security in the Franco-German War" (January 1988), determined his selection for the annual award.

The authors nominated for the 1987 award were: Maj. Mark W. Hays, "The Red Army as an Institution of Power" (March), Dr. Nicholas Dima, "Eastern Europe: An Area in Crisis" (June), Dr. Robert L. Turkoly-Joczik, "Eisenhower's Laotian Venture" (October), Maj. Coumbe and SFC Milton Nodacker, the at-large nominee for "Intelligence and Deception Factors in the Battles of El Alamein" (January).

This year's winner was selected by a panel of four senior officers from the U.S. Army Intelligence Center and School, Fort Huachuca, Ariz. The panel used the categories of originality, style, scholarship and overall appeal as a broad framework for making the selection.

The staff of *Military Intelligence* congratulates Coumbe for this literary achievement and thanks him for his support of the professional bulletin of the Military Intelligence Corps.

funding cannot be used for degree completion or other professional development training and education funded by other programs.

DALASP sponsorship provides funding for all costs associated with the approved training. Final research products are forwarded to the DPM for review, approval and further distribution.

AC Army personnel eligibility:

• Duty assignment must require the foreign language to be studied.

• Enlisted: CMF 96 (E-6 and above), 96B, 96F, 97B or 97E.

• Warrant Officer: 350L, 351B, 351C or 351E

• Officer: 35B, 35D, 35E, 35F, 48 or 39.

DA civilian eligibility:

• Duty assignment requires the above training to improve job performance.

• GS-0132 (Intelligence Research Specialist) and GS-080 (Security Specialist in certain assignments) at GS-07 and above.

Application packets should be forwarded through the immediate chain of command with a DD Form 1556 to the appropriate Total Army Personnel Agency (TAPA) point of contact (POC) for verification and collation. NCOs should send applications to: DAPC-EPL-M, ATTN: SFC Rhinehart for MOS 96B and 96F, SFC Gerald for MOS 97B and SFC McDermott for MOS 97E, autovon 221-0076. Warrant Officers should send applications to: DAPC-

OPW-II, ATTN: CWO4 Thyen, autovon 221-7841. Officers should send applications to: DAPC-OPB-D, ATTN: Maj. Wixted, autovon 221-3140. DA civilians should send applications to: DAPC-CPD-I, ATTN: Ms Lillienthal, autovon 221-9335. TAPA POCs and the DPM will review, screen, prioritize application packets and select qualified personnel. Applicants for long-term academic programs should contact the Office of the Deputy Chief of Staff for Intelligence (ODCSINT), (DAMI-ISS), ATTN: Mr. Franke or CWO4 Wilson, autovon 225-2389 to request detailed guidance and application format.

If you are interested and qualify, GO FOR IT!

Update of Foreign Language Proficiency Pay

The initial Foreign Language Proficiency Pay (FLPP) implementation guidance in 1987 made incentive language pay available only to Active Duty and Reserve Component soldiers serving in MOSs of Special Operations, Military Intelligence and Electronic Warfare/Cryptologic Operations which require foreign language proficiency. New updated guidance has extended FLPP to soldiers *in any specialty* requiring proficiency in one of the languages designated critical by the Department of Defense (DOD).

FLPP is now awarded to soldiers who meet the following criteria:

• On active duty and entitled to basic pay.

• Certified proficient within the past 12 months in a foreign language for which DOD has a critical need.

• Assigned to military duties requiring proficiency in the requisite language and performing the duties of the position, regardless of MOS. (Exception to duty position requirements are soldiers with PMOS 96F, 97B, 97E, 98C, 98G or 98Z, all CMF 18 linguists and Warrant Officer MOS 180A, 961A, 971A, 972A, 973A, 982A and 988A.)

• Commissioned Officers must have a branch code of 18 or a functional area of 48 and be assigned to or performing duties in an authorized 18 or 48 position.

There are additional changes in the new guidance that require clarification. The DLPT I and II versions contain only listening and reading components. DLPT III adds a speaking component to the test system. However, the administration of the speaking portion has been postponed until after April 14, 1989. Then, only those MOSs that require a speaking modality will be tested: for example, 96 CMF requires a speaking proficiency, but 98 CMF does not.

New implementing instructions do not contain a retroactive provision for payment of FLPP. Therefore, payment of FLPP is not retroactive to April 15, 1987. If a request is received claiming entitlement to FLPP for the period between April 15, 1987 and March 31, 1988, and the request meets the eligibility requirements, the request should be forwarded with full justification through command channels to TAPA, ATTN: DAPC-EPT-B, 2461 Eisenhower Avenue, Alexandria, Va., 22331-0457. Headquarters, Department of Army point of contact is Capt. Fletcher, autovon 225-7485. MI point of contact is SFC Bill Saindon, autovon 821-3012/3435.

Integrated Training Support for Interrogation

The basic building block for unit readiness is individual soldier skills. Each assigned soldier must be proficient in his own critical MOS tasks before the unit can work together smoothly. Individual readiness requires critical tasks to be trained to standard under conditions which simulate wartime performance. For the interrogator, realistic training means using foreign language skills to perform critical tasks. This kind of integrated training is difficult because the required support materials are not available. Most of the current training support materials for interrogators address either language or interrogation skills. Very few support packages train language in the context of critical task performance. The Intelligence Center and School (ICS) has begun a long-term effort to correct this training support deficiency.

In August 1987, ICS contracted for development of 10 language proficiency tests based on the current editions of the 97E Soldier's Manuals. The tests will measure an interrogator's ability to perform critical MOS tasks that require foreign language listening or reading

skills. Each test will have two different scoring templates. One will score each task with "Go/No Go" criteria. The other template will evaluate overall listening and reading proficiency as defined by the Interagency Language Round Table. The tests and their scoring templates will be shipped to MI units for use as training diagnostics. The contract will cover each of the following languages/dialects:

Arabic/Egyptian	German
Arabic/Iraqi	Korean
Arabic/Syrian	Polish
Czech	Russian
French/North African	
	Spanish/Latin American

This contract is Phase I of the Interrogator Comprehensive Evaluation (ICE) project. It does not address speaking because of problems with test methodology. Speaking cannot be evaluated by a multiple choice test. The Defense Language Proficiency Test uses tapes of oral interviews to measure speaking proficiency. These tapes are centrally evaluated by native speakers at the Defense Language Institute. Such an evaluation system cannot supply immediate feedback. Commanders, trainers and individual interrogators need that feedback to guide their training efforts. Identifying, hiring and training the number of native speakers needed to conduct interviews at each unit would be prohibitively expensive.

Once a workable system is identified, Phase II of the ICE project will be designed and programmed. Phase II will develop speaking diagnostics for the same languages/dialects covered by Phase I. Readers are invited to suggest decentralized systems for conducting speaking proficiency evaluations. Ideas should be addressed to SFC Deken, Foreign Language Office, ATSI-DA-L, AUTOVON 821-3012/3435.

As the Phase I and II diagnostic evaluations are being validated, potential training weaknesses will be identified. Phase III of the ICE project will produce remedial training materials that address these weaknesses. The project's end goal is to develop, by language, completely integrated training support packages. When fielded, these packages will allow units to tailor their training to the needs of individual interrogrators.

Increased Language Training Necessity

Increased language training is necessary so that higher levels of language proficiency can lead to improved job performance. One of the more effective ways for military linguists to improve their foreign language proficiency is by attending advanced-level language courses, such as those provided by the Defense Language Institute, Foreign Language Center (DLIFLC). Most trainers agree that the learning process is enhanced when military students are able to concentrate their efforts in an academic setting. However, the U.S. Army does not currently have a career program that requires attendance at advanced-level language courses. This has resulted in an overall lack of language proficiency throughout the system, despite other worthwhile language training programs conducted by major Army commands and other government agencies. The Office of the Deputy Chief of Staff for Intelligence (ODCSINT) Army Language Program Action Plan (ALPAP) and the Training and Doctrine Command (TRADOC) Action Plan for Foreign Language Training identify the need to increase and improve language training. The majority of the U.S. Army linguist requirements are within the Military Intelligence (MI) Branch; therefore, the U.S. Army Intelligence Center and School (USAICS) submitted a proposal for a linguist life-cycle model through TRADOC to the ODCSINT. The model responds to the ALPAP issue which identified that the U.S. Army has no program or policy to automatically send career linguists back to the DLIFLC for intermediate or advanced foreign language training. The plan tasks USAICS to develop individual training plans (ITPs) for MOSs requiring languages which reflect linguist life-cycle model requirements. The model also responds to the TRADOC Action Plan for Foreign Language Training issue requiring USAICS to develop a training strategy that addresses general and job-specific foreign language training throughout the life cycle.

The linguist life-cycle model outlines the training requirements in ITP format. It states in generic form, resident and nonresident training required from skill level one through four. Included is a language training diagram that outlines, in a timeline sequence, DLIFLC basic, intermediate and advanced course training, Noncommissioned Officer Education System training and MOS skill levels. Individual training strategies include recommendations for training requirements on both resident general and job-specific language training.

The proposal is not without costs in terms of additional resident training time, which translates to more time away from unit assignments, and the additional training resources that would be required. Due to the magnitude of the proposal, USAICS recommended to ODCSINT that a study group be formed to evaluate the effectiveness of the proposal.

USAICS is waiting for ODCSINT and TRADOC to review and comment. Future refinements of the linguist life-cycle model will concentrate on specific MI MOSs which require language training. When approved, this process will revise the ITPs for the MOSs affected. This model will hopefully establish a linguist training program that is reflective of the need to upgrade language proficiency throughout the career of all MI linguists.

Training Notes

Best Soldier Challenge

The soldiers of Company A, 501st MI Battalion, 1st Armored Division participated in a realistic test of their land navigation skills during a "Best Soldier Challenge" to measure combat readiness.

The event began with an Army Physical Readiness Test, followed by an in-ranks field inspection and a written land navigation test. The soldiers were then paired off and sent on a timed, two-day land navigation course to find 24 points in the forested areas surrounding Ansbach, West Germany. At selected points, they were tested on one or more of 35 "go-to-war" soldier skills, including their required Common Task Testing (CTT) for the year. Point totals were assigned for each task or event, which ranged from "filling" a VINSON scrambling device to treating an abdominal wound to preparing a fighting position range card.

Most of the soldiers, members of the division's collection and jamming company, seemed to be enjoying themselves. Despite the planning and coordination necessary and the difficulty of attempting to free the company from duty and detail commitments for two days, the company commander felt it was a worthwhile effort. A key aspect of preparation for the competition was to put the responsibility for training on the soldiers and team chiefs. In this way, company leaders could gain an accurate assessment of each soldier's field skills and motivation level.

Because the unit undergoes a 50 percent turnover every six months, the goal is to hold the challenge twice a year. Additional tasks will be added to the competition, and the land navigation will be made more complex.

The "Best Soldier" aims an M-18A1 Claymore mine trainer at the prescribed target during the Company A, 501st MI battalion competition.

A BTR-50P or a BMD? Threat or friendly? Only the correct answer satisfies the evaluator.

Company A, 501st MI Battalion "Best Soldier" removing his M-57 firing device and the M-40 Test Set at the Claymore Mine station during the challenge competition.

New Insights for Military Intelligence

During September 1987 the 205th Military Intelligence (MI) Brigade participated in exercise Certain Strike (REFORGER) 87 with a mission to conduct intelligence and electronic warfare operations in support of the Northern Army Group (NORTHAG) and the III Corps. Certain Strike 87 proved to be not only the largest field training exercise in Western Europe since World War II but also the largest deployment of tactical MI assets ever. This provided the 205th an excellent opportunity to execute and evaluate several new concepts.

This mission developed into four unique and complex tasks:

• Provide aerial exploitation support to III Corps.

• Conduct screen jamming operations to protect III Corps communication from intercept and exploitation by

Orange forces.

• Provide the basis for evaluation of the screen jamming concept.

• Conduct jamming in support of III Corps training objectives.

To provide the best support to NORTHAG the entire brigade deployed approximately 300 kilometers out of sector. The established task organization resulted in all MI assets of V Corps participating under the brigade's direction. This, in itself, was a unique opportunity to test command, control and particularly communications between intelligence assets and units.

The 1st MI Battalion (Aerial Exploitation (AE)) provided direct support to III Corps. The battalion deployed with its Quicklook electronic intelligence (ELINT), OV-1D imagery intelligence (IMINT) and Guardrail communications intelligence (COMINT) systems.

The 302nd MI Battalion (Operations) processed, analyzed and reported intelligence for the 205th MI Brigade in support of the electronic countermeasures (ECM) mission. To accomplish this, the 302nd deployed two of its

technical control and analysis centers, as well as all the necessary analytical support from the corps tactical operations center support element. The 108th MI Battalion, 8th Infantry Division with B Company, 165th MI Battalion, 205th MI Brigade under its operational control and the 533rd MI Battalion, 3rd Armored Division with the 511th MI Company, 11th Armored Cavalry Regiment under its operational control provided all ground-based collection and jamming support, as well as intercept and jamming support with the Quickfix helicopter.

These units deployed the GLQ-3B jammer; MLQ-34 Tacjam jammer; TLQ-17A Traffic Jam; the TSQ-114 Trailblazer, a direction finding system; and the TRQ-32 Teammate, an intercept and radio direction finding system.

The overall REFORGER 87 scenario began with increasing tensions between the East and West, which triggered the REFORGER execution and the deployment of III Corps to Northern Germany. The primary phases of the exercise were the deployment of III Corps

from its staging areas to counterattack positions and the subsequent counterattack against the Orange forces.

Throughout these phases, the brigade was to execute all four of its tasks. The first was conducted throughout the duration of the exercise. As described earlier, the 1st MI Battalion (AE) provided COMINT, ELINT and IMINT support. To conduct its operation, it had to move from its garrison location in Wiesbaden to RAF Gutersloh where it was collocated with HQ, 504th MI Brigade, III Corps.

This was the first-ever tactical deployment of a full-up AE battalion equipped with the Improved Guardrail system. The successful move is significant because it demonstrated that the AE battalion, in spite of its sensitive oversized equipment, is indeed mobile.

During III Corps deployment from staging areas to counterattack positions, the brigade focused on its second and third tasks. Screen jamming is a standard element of a doctrinal ECM mission. However, prior to the 205th's participation in REFORGER 87 this concept was never actually executed. The objective of the screen jamming was to protect III Corps' communications.

To accomplish this, the brigade located interceptors and jammers within the Blue area of operations. The interceptors then cued the jammers at the appropriate time for the jammers to interfere with the collection efforts of Orange interceptors.

This type of cuing was necessary because the nets being monitored were supposed to be on radio silence and the jamming would only be conducted if radio silence was broken. These factors played an important role in the evaluation of the screen jamming concept.

To collect the data for the evaluation of the screen jamming concept, the brigade deployed interceptors within the Orange area of operations to monitor the same key III Corps frequencies and collect data on the effectiveness of the jammers. This data collection was supplemented by preplanned, five-minute screen jamming missions which occurred every half hour. The data was then provided to the Joint Electronic Warfare Center (JEWC) for further evaluation.

As a result of the brigade's lessons learned and the JEWC evaluation, it is evident that screen jamming has potential to protect some of our own com-munications in battle. However, some significant actions are required to bring screen jamming from a valid concept to a valid tactical operation.

First, the speed at which interceptor to jammer tip-offs occurred slowed down the screen jamming process and limited the effectiveness of the operation. This was due not only to equipment capabilities and operator training level but also to the structure of the tip-off link. When the intercept station (located in the Blue area of operations) received a signal on a frequency that was to be protected, the information was passed to a transcription and analysis team or the battalion technical control and analysis element (TCAE), which then tasked the jammer teams. This process took anywhere from 5 to 15 minutes before jamming was initiated.

The use of a direct communications link between intercept and jamming assets would reduce the time factor. To assure proper control of ECM missions, the TCAE would necessarily be required to monitor those "rapid response" communications. Such a streamlined process would require reliable communications equipment and well-trained operators.

Secondly, the lack of "look-through" capability on our jamming assets to hear the signal that was to be protected, made it necessary to "blanket-jam" an entire transmission, rather than jamming key portions of a particular transmission. There are problems that arise in the conduct of both offensive jamming missions and screen jamming when such a technique is used.

In an offensive jamming mission, the targeted receiver is more easily able to determine it is being jammed and may take the appropriate countermeasures. In a screen jamming operation, the lack of a "look-through" capability and the necessity of "blanket-jamming" a particular transmission makes for a situation in which the communications net to be protected is no longer transmitting. However, the jamming continues until the jammer stations are tasked to stop jamming that net. This results in very inefficient utilization of these scarce resources.

Notwithstanding these limitations, the screen-jam mechanics were successful. The evaluation conducted by the JEWC was inconclusive because of the lack of correlated data. However, one of the units engaged in the screen jamming conducted a controlled test during the REFORGER operation.

The test concluded that a jammer, while keyed and actually jamming, could successfully interfere with collection in the Orange area of operations about 75 percent of the time. As operations become more streamlined and operator education improved, screen jamming in actual operations can be expected to approach a success rate of 75 percent.

The fourth task of the brigade was executed during the counterattack phase by repositioning all jammers into the Orange area of operations. The large density of ground-based and airborne jammers deployed provided an especially valuable opportunity for III Corps to operate in a realistic electronic warfare environment.

The jamming operations were conducted in accordance with NORTHAG's ECM plan, which assigned specific division and brigade targets. Within this plan, however, the 205th MI Brigade had the latitude to target any radio net within a targeted brigade formation. This allowed them to exercise the full range of electronic support measures, from collection management, to technical control and analysis, and intelligence production.

The jamming itself was conducted by a combination of ground-based assets, limited to 500 watts power output, and the airborne Quickfix system, limited to flying no higher than 150 feet above the terrain. The power limitation and wet weather limited the effects of ground-based jammers. However, the Quickfix system operators reported that their jamming was quite effective despite the height limitations. Of course, only operators of the radio nets being attacked know for sure how effective the jamming was.

The results of REFORGER 87 are still being evaluated and the final decision has yet to be made on new concepts. Overall, the 205th MI Brigade's participation was very successful. The lessons learned should further enhance the Army's tactical MI capabilities by providing new information on the deployment of systems such as Improved Guardrail V, as well as information on the potential for screen jamming as a valid concept to protect our own communications in battle. Finally, the jamming mission in support of III Corps training objectives should provide new insights to our operational capabilities on the electronic warfare battlefield.

PROFESSIONAL READER

Her Majesty's Secret Service: The Making of the British Intelligence Community by Christopher Andrew, New York: Viking Penquin, 1986.

SIGINT and HUMINT — these alien-sounding acronyms are known to the intelligence professional, if not to the uninitiated. In this book, Christopher Andrew, historian and Fellow at Corpus Christi College, Cambridge, England, creates an absorbing history within a history.

Signals intelligence (SIGINT) came into use by the Admiralty during World War I and was instrumental in containing the German High Seas Fleet. Human intelligence (HUMINT) was the alternative to SIGINT on the Western Front where agent reports, carrier pigeons and aerial reconnaissance were relied upon.

Intelligence on the Western Front in 1914 was a novelty. Andrew's account of the putting together of an Intelligence Corps to accompany the British Expeditionary Force to France has its humorous as well as serious side. Neither the French nor the British took much notice of the Intelligence Corps' "exaggerated" reports. GHQ intelligence staff, however, structured closely the enemy order of battle — the bedrock of all intelligence work. That good intelligence is often badly used is the recurring theme throughout Andrew's work.

In World War II, high altitude photo reconnaissance — an innovative project of the Secret Intelligence Service (SIS) — was intelligence gathering of a quality previously unknown. In the 1950s the Soviets rejected President Eisenhower's "open skies" proposal, but the U-2 was nonetheless put to use by the United States. Today, all systems of arms control are monitored by spy satellites.

In this popular-styled history Andrew begins and ends on the same note: At war's end the British intelligence organization was allowed to run down. Behind this decision was Whitehall's reluctance to discuss publicly intelligence gathering, especially during peacetime. Whitehall has discouraged the usual serious attempts to write about its intelligence gathering, citing the danger to national interests.

Whatever the obstacles in his way, Andrew has brought to light a side of the past heretofore hidden from view. He has done it expertly, with humor and anecdotes of famous (or not-so-famous) people who come alive in a kind of Dickensian array of characters.

The earliest secret force in Britain was less than organized. The actual beginning was the small Tudor-period organization that brought Mary, Queen of Scots to the scaffold. In our time there was Garbo, the Allied double agent who very probably changed the course of history at Normandy on D-Day. At the end of the story, but not the history, is the postwar alliance with American intelligence during the Penkovsky and Cuban missile crisis affairs.

In between are the details of a growing intelligence organization in which a part-time venture into cryptanalysis in 1703 came closest to a true intelligence service. The early Victorian Foreign Office dabbled in covert action in Persia (now Iran) aimed at Tsarist Russia. In the mid-19th century reforms, Whitehall updated its departments, except for secret intelligence.

The British Army in the Victorian years was basically a colonial army emphasizing tactics over strategy. The Duke of Wellington, as commander-in-chief, influenced a change in military policy. The result was the forerunner of strategic intelligence, the Topographical and Statistical Department. This was the first intelligence establishment of the War Office. From this point began the transformation of Victorian intelligence systems into early 20th century departments. Hitherto, the "sporting value" of amateur espionage of a Lord Baden-Powell was the thing. Like military and naval intelligence the domestic version was slow to form. Early Victorian England used informers. "We have no police over opinion," boasted Charles Dickens in the 1850s.

The Special Branch of the Metropolitan Police was formed in the 1880s as a direct result of political pressures, the influx of aliens and the Fenian Brotherhood. Germany's naval buildup at this time added to the stress caused by the Boer War and a general fear of invasion.

About 1909, a Secret Service Bureau was established, a big step in the emergence of a modern secret intelligence community. The Secret Service Bureau was the forerunner of MI5 (military intelligence) and the SIS. The foreign section of the Secret Service Bureau was responsible to the Admiralty, its main purpose to collect evidence of a Germany planning sudden war against England.

The foundation of the modern British Secret Service was laid about this time when evidence of German espionage, though not overwhelming, was discovered. World War I forced the British to adopt a modern intelligence system of "intercepts" or telegraphy. Winston Churchill was the first British minister to see the importance of SIGINT. Room 40, as the cryptanalysts came to be called, was incorporated as ID 25 in 1917. Their greatest achievement was to make surprise attack impossible. Eventually, ID 25 was absorbed by Naval Intelligence. The effort to conceal the work of ID 25 foreshadowed the even greater endeavor in World War II to shield ULTRA.

Revolution in Russia raised fears of subversion in Britain. MI5, which had come out of the 1916 War Office reorganization, was supplied with a Central Registry index and cable and postal censorship. Anti-alien feeling was widespread. A highlight of this spy scare was the farcical Black Book court case of Pemberton Billing, a tabloid journalist, during the final months of the war.

During the civil war between Red and White Russians there was a failure of British intelligence to collect information, as well as a failure to keep Russia in the war. On the whole, countersubversion and counterespionage at home had higher priority than covert action in Russia. The Passport Control system of 1919 was meant to exclude Bolshevik agents at Passport Control offices overseas, continental embassies and legations. Basil Thomson of Special Branch remarked, " . . .to abolish the Passport Control system would be an act of suicide."

In this same year a highly secret government department under Admiralty control was formed to "study the methods of cypher communications used by foreign powers." This was the Government Code and Cypher School (GC&CS) which in the early 1920s was to give Prime Minister Lloyd George a great advantage in dealing with the intrigues of a visiting Soviet trade delegation.

Inevitably, there was rivalry among the intelligence services and no lack of political struggle between Conservative and Labor members of Parliament. In 1924 and again in 1931, the Labor government was brought down by the Conservatives' misuse of confidential intelligence information.

In that same decade, intelligence operations overseas were aimed at Soviet subversion of Afghanistan where the Soviets were selling arms in Kabul. This caused the British foreign secretary to send an ultimatum to Moscow resulting in recall of the Soviet envoy.

Following this incident an All-Service Cryptology Directorate was established. Improved coordination of SIGINT was the goal and was brought about by direct control of the distribution of intercepts from the military listening posts in Palestine, Baghdad and India. Communist subversion in India was monitored closely by the Delhi Intelligence Bureau. The Communist Party of Great Britain sent Philip Spratt to India. Spratt was its first Cambridge recruit, the forerunner of the moles of the 1930s.

For the first time in modern history the government debated openly in Parliament secret information provided by GC&CS intercepts, thereby compromising the agency. By 1929 the intelligence services had warded off the threat of Communist subversion in both Britain and India.

During the early 1930s, the Depression and its resultant spending cuts brought on a British military decline. The Intelligence Corps faded. The secret intelligence services suffered more attrition than other areas of national interest. The most important intelligence gathering during that period was strictly economic in nature.

This development goes back to the early 1920s when Churchill appointed Maj. Desmond Morton to a key role in SIS. During 1927, Morton produced a series of reports on "Industrial Mobilization Abroad." Economic intelligence became very important for a number of reasons, not the least being the end of the Allied Control Commission in 1928. The Industrial Intelligence Centre was funded from the Foreign Office Secret Vote. Ramsay MacDonald, the prime minister at the time, was aware of Churchill's great interest in intelligence and wrote: "Tell him what he wants to know, keep him informed." His successors, Stanley Baldwin and Neville Chamberlain, endorsed it.

During those years of change MI5 and Special Branch took serious notice of right-wing and left-wing subversion. Germany had replaced Russia as the main target of foreign intelligence. Soon friction developed between those who favored appeasement and those who did not. During the period of German expansion the intelligence services were faced with two main problems: to assess the threat of German rearmament and to give warning of forward moves.

After Munich in 1938, the Foreign Office approved the Joint Intelligence Committee (JIC) whose role was to interpret raw intelligence. The Director of JIC soon wrote a secret memo attacking the "overlapping" in analyzing political intelligence. A remedy was still waiting to be applied at the outbreak of war the following year.

On the eve of war, Whitehall had finally arrived at a conception of the intelligence community as a whole, which was to underscore the conduct of the war. "Britain," writes Andrew, "was half-ready, and the intelligence service and its machinery of assessment no exception."

The "Venlo Incident," a German Secret Service "sting" operation used as an excuse to invade Holland in 1940, caught the SIS napping. Later, the shoe was on the other foot when MI5 penetrated the Abwehr with double agents, and the double-cross system was inaugurated. This system of deception was to play a vital role in the D-Day landings. But before the end of the Phony War there were to be examples of "remarkable failures of communication even within individual intelligence service departments."

Churchill's story is always absorbing. As First Sea Lord of the Admiralty in 1914 he was personally involved in the creation of Room 40 and the rebirth of British codebreaking. By a stroke of luck very soon after he became prime minister the most valu-

able intelligence source in British history came to light when the codebreakers of GC&CS succeeded in breaking the German air force version of the Enigma machine cipher.

From then on GC&CS was able to read current German traffic using the air force Enigma almost without a break. The Enigma decrypts were originally codenamed "Boniface." Later they were known to the initiated as ULTRA.

The story of ULTRA has the classic sound of life imitating art. It began with a German traitor named Hans Schmidt, who was working in the Reichswehr cipher office. In October 1931 Schmidt offered his services to the French. The French also obtained the services of Marian Rejewski, a brilliant mathematician from Posnan University who was working with the Polish General Staff cryptographic services.

As early as January 1933 Rejewski had succeeded in decrypting certain Enigma intercepts. But, by the end of 1938 Rejewski's team of cryptanalysts were baffled by more sophisticated versions of the machine. On July 25, 1939, a secret meeting took place near Warsaw with the Polish, French and British cryptographers. The Poles revealed everything they knew about Enigma. When Poland was overrun by the Wehrmacht the following month, Rejewski and his staff fled to France to join the French team. After the fall of France, the French team, codenamed BRUNO, worked with GC&CS. Later the work was undertaken by the British.

A decisive part in winning the war against the German U-Boats was the Operations Intelligence Centre in which ULTRA intelligence on German naval movements became the nerve center of the Admiralty. In March 1939 Minley Manor near Camberley became the school for intelligence training for the entire army. The Intelligence Corps was not officially re-established until July 1940.

"No British statesman of modern times," writes Andrew of Churchill, "has more passionately believed in the value of secret intelligence. . . . It was under his inspirational leadership and in the finest hour of his long career that the fragmented intelligence services acquired at last that degree of coordination which turned them into an intelligence community."

In a thoughtful epilogue, Andrew continues his sweeping treatment of postwar confusion within Whitehall. Anglo-American

intelligence collaooration grew stronger and developed into spheres of cryptographic influence. American leadership evolved through her significant investment in the SIGINT link, and mutual trust has been reached by way of secret agreements with Canada and other Commonwealth nations.

This is a rewarding book on different levels and should interest the general reader as well as the intelligence professional.

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German/Soviet Views of Military Doctrine

The recent proliferation of information on German tactics during World War II and modern Soviet strategy afford an interesting opportunity to examine their methodology. The following books have much to say about tactical thought and give great insight into turning difficult problems into militarily feasible solutions. Two of the reviews examine recently published works that allow the student to see Soviet thought as taught in the higher Soviet military schools — thought that we attempt to understand and counter in our AirLand Battle doctrine and further define in our professional courses. Perhaps the most important and far-seeing is the book on German reconstitution during World War II which discusses doctrine critical for the follow-on stages of AirLand Battle wherever fought. The public expects the military to *Be — Know — Do*. The *know* involves much work and examination by the serious military student. These books offer information that may eventually be essential to the defense of our country.

Forecasting in Military Affairs: A Soviet View by Yu V. Chuyev and Yu B. Mikhaylov, Washington, D.C.: Government Printing Office, 1975, 230 pages.

This volume defines an important aspect of military affairs in the context of Soviet military operations. It also showcases the Soviet's extensive use of mathematical formulas for operations research.

The book is divided into two sections. The first consists of five chapters on the general principles of the military application of forecasting. The second section,

consisting of four chapters, is devoted to the methodology and practice of military forecasting. The authors define their terms and illustrate them with diagrams and formulas. It is easy to comprehend, although performing the math equations, some of which utilize unfamiliar symbols, takes some work.

The Soviets constantly emphasize that their forecasting methods are principally used to cut the time needed to accurately forecast enemy activities. This rationale is due to the "need to concentrate and disperse troops in the shortest possible time." They define military forecasting as, "The study of the military-political situation, the pattern of war in the future, the prospects of developing strategy, operational art and tactics, the qualitative and quantitative composition of the means of armed conflict (one's own and the enemy's), the prospects for development of the potential of war economy in the future and also forecasting of the enemy's strategic plans."

The forecasting product serves as a scientific basis for the elaboration of military plans. The book describes the forecast system with heavy emphasis on the models applicable to military thought. What struck me was the interpretation of forecasting phases in mathematical terms, i.e. available information about a given object of a forecast divided into "incomplete," "complete" or "surplus" information and determined, according to the Soviets, by use of a given formula. A prime example of this is the following description of a coefficient of relative Combat Effectiveness of a Tank Battalion, the number 30, "which takes into account its potential and limitations, defines the relative effectiveness in fulfilling a combat mission . . . and emphasizing the main weapon system."

The number used in a given formula would result in a statistical probability for success. The chapter on "heuristic" forecasting or forecasts of "quantitative and qualitative future characteristics" is revealing in its descriptions of how the Soviets use the method in military forecasting.

This book is as well written as the others in the series. Yet, it departs from the others due to the nature of its subject matter, a subject few American officers will experience in any depth. For this reason alone, the book is interesting and intriguing to the reader and necessary to those whose duties involve forecasting at the highest levels.

The Soviet goal in integrating forecasting with other portions of the military art was presented in the following description of Soviet Gen. I.D. Chernyakhovsky's actions during World War II.

"He had the ability to foretell, not only the nature and special features of an impending battle but all the possible changes during the course of its dynamics . . . constantly and sensitively feeling the pulse of battle, all his decisions were distinguished by breadth, boldness of concept and that element of risk which based on subtle analysis of the situation and precise calculations, made it possible to implement . . . with maximum effect."

Tactics: A Soviet View, edited by V. G. Reznichenko, published under the auspices of USAF (No. 21 - Soviet Military Thought Series), Superintendent of Documents, 1984, 227 pages, $7.00.

This volume, Number 21 in the excellent series **Soviet Military Thought**, is a thorough presentation of Soviet tactics as they are taught to Soviet Staff College officers and "students at higher military educational institutions." I found the volume to be a superb compliment to the Soviet doctrine course presented to CGSC students.

Tactics is presented in five chapters that highlight the Soviet view of tactical operations: "The Principles of Modern Combined Arms Combat," "The Offensive Engagement," "The Meeting Engagement," "The Defensive Engagement" and "Troop Movement." Added is a list of recommended readings and tactical maps illustrating the main points. The editor marks the important phrases of each chapter in boldface type, helpful to both serious students and casual readers. The first chapter gives needed historical overviews of the development of Soviet tactical doctrine and then links it with descriptions of combined arms operations.

This volume updates the perceptions of central Soviet control of all military operations with the following quote:

"It is vitally important to indoctrinate officers in a spirit of resoluteness, boldness and perseverance, the ability to implement decisions without hesitation, the willingness to assume full responsibility for initiative displayed . . . Units must operate boldly, bravely and with great initiative."

This instruction points to a greater reliance on independence and a spirit of instant decision on the part of the officer corps than has been presented in the past. The placement of the "Principles of Modern Combined Arms Combat" as the first chapter and subsequent stressing of combined arms warfare should not be lost on the reader. The Soviets also do a fine job of "translating" their historical experiences into lessons that improve their tactical sense. Again and again, the authors point out lessons of past Russian military experience and extract valuable lessons. Tactical instructions such as, "apply new tactical procedures not anticipated by the enemy," point to Soviet openness to innovative and non-doctrine solutions (another possible support for the use of operational maneuver groups in offensive operations).

This volume is an excellent compliment to our FM 100-5, *Operations*, and could serve as an introduction to Soviet tactical thought. The only drawback is the absence of a map glossary to explain the Soviet map symbology. Overall, it is an excellent presentation of a subject with which our officer corps must be familiar.

Military Improvisations During the Russian Campaign, reprinted by the Center of Military History, 1986, 110 pages, $3.50.

This study was prepared at the end of World War II by a group of former German generals and staff officers. The principal author reached the rank of *Generaloberst* (full general). He served throughout the Russian campaign, commanding units up to and including an Army Group. This study has maintained its value for both the postwar understanding of German resilience against the Russians and as "words of wisdom" to the modern officer looking at unit reconstitution at the begining or during AirLand Battle confrontations in Europe.

The German officers explain how in the best tradition of armies, they looked at their situation and maximized their resources, often in the face of brutal odds and leading, in many instances, to unexpected victory. Part Two is a brilliant recitation of how German efforts concentrated on three types of tactical improvisation — the formation and commitment of combat staffs and units in sudden critical situations, the employment of units for missions outside their normal scope and the adaptation of tactics to unexpected situations. Consider the following material on the creation of "emergency alert units" to help reconstitute the 6th Panzer Division in 1942:

"Within 24 hours . . . the staffs of all units were busy intercepting every available officer and man in their respective areas and forming emergency alert units . . . each unit kept the arms salvaged from its parent unit, a procedure used as a guarantee against unnecessary splitting up of available manpower and resources, if possible. The alert units were committed in a sector where they could protect their own service and rear installation. By the 10th day, the division had improvised a full-strength, completely equipped motorcycle company utilizing men returning from furlough or convalescent leave, this mobile reserve, commanded by battle-tested officers became a crack unit . . . by the 20th day, the reconstituted division was serving in sector and went on to serve through the campaign."

There are, in addition to the passages on reconstitution, descriptions of the training needed by these reconstituted units prior to commitment and the steps to be used prior to their employment. These chapters hold some of the most valuable lessons to be learned from the study as are the sections on equipment adaptation and the lessons learned in the defense of static positions. The book even includes a chapter on improvisation in supply or transportation operations, a rarity in any text on this subject. It is also apparent that the Russians

incorporated certain German improvisations into their doctrine (doctrine we now consider purely their own).

In my opinion, this book has great value to every military officer because of its timeliness as well as clarity and brevity in discussing this topic. It could be used as a "bible" of reconstitution and is highly recommended for those officers whose work or study leads them to consider battlefield reconstitution and/or improvisation.

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The Keegan Trilogy: Unraveling the Mysteries of Human Warfare

For anyone who has labored in the service of a pompous, self-centered neo-Napoleon, had their intelligence insulted by a pseudo-Clausewitzian touting his *schwerpunkt*, felt hungry for more substance after exploring the doctrine of leadership in FM 22-100, or been staggered by an instructor who confuses leadership training with encounter groups, the works of John Keegan offer a refreshing alternative. With a deserved reputation as one of the world's best living military historians, former Senior Lecturer at Sandhurst and now Defense Correspondent for the *Daily Telegraph*, Keegan delves into the eternal questions of why soldiers fight with resolution, what role warfare and its institutions play in social life and how commanders can lead their soldiers to victory. He has created a remarkable trilogy on warfare and leadership that bears study by the professional soldier, regardless of rank, branch or position.

Keegan's starting point is the precept that "a battle must obey the dramatic unities of time, place and action," and a belief that each battle and everyone who fights it must be viewed in its own (and not the reader's) historical context. He departs from both the social scientists, who attempt to impart idealism and rationality to what is at best organized mayhem; and the strategic thinkers embodied by Clausewitz with their purity of doctrines and faith that warfare can be reduced to a handful of absolute principles. Moreover, Keegan avoids traditional distortions of military history, with the focus on generals and heroes "who often write about their own adventures with a disdain for objectivity and a flair for romance," by bringing the reader to imagine the pain, noise, confusion, terror, courage and exhaustion experienced by soldiers of the line.

The first of the trilogy, **The Face of Battle** (New York: Viking Books, 1976, 354 pages, $13.95) is a study of the epic battles of Agincourt (1415) and the Somme (1916).

Believing that history "can be pressed into the service of familiarizing the young officer with the unknown," and aiding him in practicing the "exciting routines of battle" so that "the machinery of war will operate smoothly under extreme stress," Keegan's literary simulation is insightful and eminently useful to one who would strive to avert the onset of fear or panic in the first battle.

Keegan demonstrates, as accurately as possible, what the warfare of hand, single-missile and multiple-missile weapons was (and is) like. He suggests how and why the men who have had (and do have) to face these weapons control their fears, staunch their wounds, go to their deaths. An example is his description of the fate of the initial French cavalry charge and infantry thrust into the English lines at Agincourt:

" . . . The cavalry failed to break the English line, suffered losses from the fire of the English archers, and turned about. Heading back for their own lines, many riders and loose horses crashed into the advancing line of dismounted men-at-arms. They, though shaken, continued to crowd forward and to mass their attack against the English line. For a moment it gave way. But the French were too tightly bunched and they could not use their weapons to widen the breach they had made. The English men-at-arms recovered their balance, struck back and were joined by numbers of the archers, who, dropping their bows, ran against the French with axes, mallets and swords, or with weapons abandoned by the French . . . There followed a short but very bloody episode of hand-to-hand combat, in which freedom of action lay almost wholly with the English. Many of the French armoured infantrymen lost their footing and were killed as they lay sprawling; others who remained upright could not defend themselves and were killed by thrusts between their armour-joints or stunned by hammer-blows . . . Eventually, those Frenchmen who could disentangle themselves from the melee made their way back to where the rest of the army . . . stood watching . . . The English who faced them did so in several places, over heaps of dead, dying or disabled French men-at-arms, heaps said by one chronicler to be taller than a man's height."

Keegan's second book in this set, **Six Armies In Normandy** (New York: Viking Books, 1982, 412 pages, $17.95) is a study of the varying status of the national armies of the United States, Canada, Great Britain, Poland, France and Germany and the great battle for Normandy that sounded the death knell of the Third Reich. Describing the individual armies at successive points in the invasion, Keegan details the strategies, depicts the senior leaders and follows the actions of individual soldiers in history's greatest amphibious and airborne invasion. Providing an excellent historical account of

the invasion, he continues his penchant to portray the face of battle as seen through the eyes of the soldier. Typical is a passage recording the reaction of a pilot who conducted battle damage assessment two days after the Air Force had flown 1,200 sorties over Normandy and found "destruction . . . complete and terrible to the last detail . . . under semi-darkness of the arching trees in full August leaf. It was obvious what had happened. Typhoons had spotted the column and had destroyed the leading and end vehicles, in this instance, two armoured cars. They had then passed up and down the lane using rockets and cannons. The vehicles were jammed bumper to bumper and each bore the sign manual of the Second Tactical Air Force — a gaping hole in the side or turret. It was quite impossible to move past them and almost impossible to clamber over them. Grey-clad, dust-powdered bodies were sprawled everywhere — propped against trees, flopped over driving seats or running boards — the once crimson stains on their uniforms already turned the colour of rust. I gave up trying to walk over this mile of utter destruction and we made a wide detour only to reach another lane, also impassable. It was grimly guarded by four German privates crouching against a high bank, their hands to their heads, pressing them down in a gesture of futile concealment. Beside them a mill stream rippled over their upturned vehicle."

The third, and greatest, book of the trilogy is **The Mask of Command** (New York: Viking Books, 1987, 368 pages, $18.95), which explores the evolution of military leadership over 2,000 years in its moral, physical, psychological and political aspects. Keegan's analysis focuses on four commanders who deeply influenced Western history: Alexander the Great (the heroic royal commander), Wellington (the anti-heroic leader), Grant (the unheroic democratic general) and Hitler (who perverted the heroic ideal). While those who are looking for biography will be disappointed, students of military leadership will find this book stimulating.

Here is Alexander the Great, who led his warriors to the end of the known world, smashing the Persian Empire in the process, being wounded eight times and succumbing to fever at age 32:

"Alexander, it is clear, was an actor of the most consummate theatrical skill. His courtly upbringing, first at the knee of his histrionic mother, then at the saddle-bow of his equally sensationalist father, amounted to complete thespian apprenticeship. Like a great actor in a great role, being and performance merged in battlefield — and the unrolling of the plot which he presented to the world was determined by the theme he had chosen for his life. 'It is those who endure toil and who dare dangers that achieve glorious deeds,' Arrian has him say at Opis. 'It is a lovely thing to live with cour-

age and to die leaving behind an everlasting renown.'"

Of Wellington, who dispassionately described his soldiers as "the scum of the earth," often had them flogged but believed in their discipline and courage when the battle was joined, Keegan writes: "Wellington's energy was legendary; so too his attention to detail, unwillingness to delegate, ability to do without sleep or food, disregard for personal comfort, contempt for danger. But in the four days of the Waterloo campaign he surpassed even his own stringent standards of courage and asceticism. He slept, for example, hardly at all. Asked if he were pleased to have been mobbed by the ecstatic population of Brussels on his return from Waterloo, he rejoined, 'Not in the least; if I had failed, they would have shot me.'"

On Grant, who Keegan considers one of the first great moderns of military history, Keegan observes: "The legend of Grant's modesty is almost as important as the fact of his triumphs in making him first the North's military hero and eventually the reconstructed Union's president. [He] possessed formidable intellectual capacity, yet was certainly not a man to impress on either his appearance or his manner. His simplicity of speech, style and manners was not affectation. It was an expression of deep-seated character."

Of Hitler, Keegan writes: "Hitler's supreme command had been — and may have appeared to him as he passed it in retrospect — no more than a charade of false heroics. It had been based, as he himself trumpeted in his days of power, on the concept of lonely suffering, on his internalizing of his soldiers' risks and hardships . . . on the equation of their physical ordeal with his psychological resistance, on the substitution of 'nerve' for courage, ultimately on the ritual of suicide as the equivalent of death in the face of the enemy. Few suicides are heroic, and Hitler's was not one of them."

After each analysis, Keegan poses the query of whether a leader should fight at the head of his troops always, sometimes or never. Throughout, he argues that the successful commander must master the five imperatives of kinship (persuading his soldiers that he understands and cares for them), prescription (telling his soldiers exactly what is expected of them and why), sanction (convincing his troops that they will be rewarded if they fight and punished if they do not), action (knowing when to attack), and example (showing that he shares the risks faced by his soldiers). With keen insight, Keegan shows how the dictum of leadership "always from the front" in the small-scale raid of primitive society has been qualified with the increase in range and lethality of weaponry and improvements in communications. In a concluding chapter on "Post-Heroic Command," he deftly argues that in the nuclear age, heroic

leadership of any style will be the ruination of civilization. His book ends with an appeal to modern states to seek and accept postheroic leaders who will foreswear heroic combat and the hollow victory of nuclear annihilation as an aim in the management of military power.

Keegan must be studied to be understood. As with Clausewitz, he has become often quoted but little read. One of the greatest dangers of Keegan's works is that much of what he writes can be taken out of context by those who would flatter themselves by imagining they are Wellingtons. To a lesser degree, Keegan must be endured. He indulges in long, complex sentences. There are too few maps, and what maps there are seem invariably placed several pages remote from the text they relate to. He is also a bit of an historical chauvinist, putting down the lesser disciplines that contribute to the formation of modern military thought. Nonetheless, John Keegan provides an essential ingredient to one's understanding of the mysteries of human warfare.

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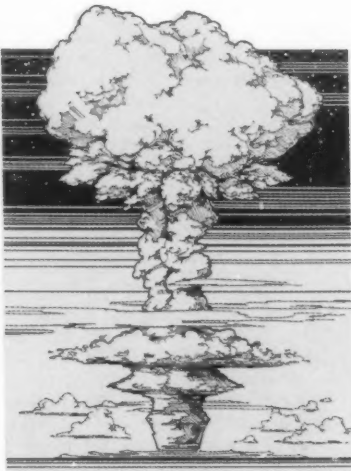
Red Storm Rising by Tom Clancy, New York: G. P. Putnam's Sons, 652 pages, $19.95.

Red Storm Rising, Tom Clancy's second novel, is about World War III. Pressured by an energy crisis, the Soviet Politburo decides it must seize the Persian Gulf oil fields in order to survive. They scheme to neutralize NATO first, however, through political and diplomatic maneuvers and through clandestine operations. Using a complex scheme of strategic deception they seek to destabilize and dissolve NATO while simultaneously preparing their own forces for a military invasion of Western Europe and then South-

west Asia. The building tension finally explodes into massive combat.

The action is seen through the eyes of a number of primary characters on both sides of the conflict. The scene changes rapidly from character to character, from east to west, from strategic to tactical levels, and from sea to land to air to space. **Red Storm Rising** is exciting and fast-paced. Clancy keeps several subplots going at once which give a good overall picture of what is happening when taken collectively. As novels go, this is certainly a good one. Beyond that, it is a primer on modern warfare and Soviet government.

Clancy put extensive effort into the research for this novel. It's easy to forget that his background is not that of a national defense professional. Without getting stuffy or dry, he puts his characters into realistic situations fighting with actual weapons systems and using authentic military tactics. They experience the frustration, exhilaration and fatigue of fast-paced combat. Through these characters Clancy shows the human aspect of warfare. As one character states, "What modern combat lacks in humanity, it more than makes up for in intensity."

Most of Clancy's expertise is in the area of US-Soviet naval combat. In his research for this novel, he sailed aboard an American frigate for a week, cruised in a submarine and witnessed live-fire exercises. He also interviewed a top Soviet defector and several American military personnel. However, while he does a great job overall, he misrepresents a few aspects of land combat.

First, electronic warfare plays no role at all in his ground campaign. Every time a soldier from either side used his radio in this novel he had communications, unless he or his distant end was closed down by physical destruction. That is a great simplification.

Secondly, Clancy does not properly represent the Soviet concept of the Operational Maneuver Group (OMG). In the story, the Soviets take an ordinary first-echelon tank division which was having some success on the main axis of advance and simply redesignate it as an OMG. The reader gets the false impression that any unit which breaks through the NATO defenses could be designated as an OMG and given the mission of capturing important economic or political targets. By Soviet doctrine an OMG is not a first-echelon or second-echelon unit. Rather, an OMG is a separate unit with a separate mission. Although it could be deployed along the main attack axis, it would usually be given a separate attack axis. For an operation the size of this Russian front, an OMG would more likely be a reinforced tank army rather than just a division. OMGs are configured for independent operations and may be reinforced with special transportation and logistical support. All divisions have objec-

tives in the enemy's rear, but an OMG is never decisively committed in the main battle effort.

Another term which Clancy misuses is *maskirovka*. The Soviet Politburo's strategic deception plan which was designed to provide strategic surprise by causing the West to misinterpret the Soviets' four-month preparation for war is incorrectly labeled *maskirovka*. The correct Russian word for this level of deception is *dezinformatzia*. *Maskirovka* actually relates only to tactical and operational-level deception.

Finally, some of the primary characters played more roles than one person in combat could conceivably play. Each scene in the novel centers around one of the primary characters. In order to depict all the scenes important to the overall plot, Clancy had to put his characters into some additional roles not consistent with their assigned positions and responsibilities.

Despite these minor flaws, **Red Storm Rising** is a worthwhile book. The ending is particularly intriguing. Clancy brings the reader into the minds of the Soviet Politburo members in their debate over the use of nuclear weapons and then brings about an astonishing conclusion. Like the entire novel, it is interesting, educational and thought provoking.

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Verification: How Much Is Enough? by Allan S. Krass, Lexington, Mass.: Lexington Books, 1985, 271 pages, $13.95.

Verification: How Much Is Enough? is Allan S. Krass' discussion of the arms control verification process and how this process is specifically related to the technological and political problems associated with arms control. Verification is "the action of demonstrating compliance with treaty obligations by means of evidence or information gathered by a variety of technical and institutional means." According to the author, verification has two fundamental purposes: to deter violation by posing a credibile threat of discovery and to build confidence in a treaty by demonstrating compliance. The primary value in a verification regime is the maintenance of a deterrent effect against militarily significant clandestine violations. But verification does not significantly deter unilateral interpretations of ambiguous treaty provisions or the minor stretching of limits to test the response of the other side. The author's final postulation is that currently available verification means exist for the detection of any militarily significant violation in time to make an appropriate

response.

Krass, a professor of physics and science policy and senior analyst for the arms-control focused Union of Concerned Scientists, conducted extensive research on the technological means of verification and on the influence of politics on the verification process. The work supports the premise that adequate verification for any arms control agreement is feasible and that the political role for verification should never be allowed to deter the conclusion of an agreement.

This book emphasizes the concept that adequate verification measures, for almost any type of arms control agreement, are presently in place. It is only the politics associated with the arms control arena, and not actual verification capabilities, which prevent the conclusion of negotiated agreements. The author's premise is sound for certain types of arms control agreements. The recently concluded Intermediate-Range Nuclear Force (INF) agreement is a case in point. The Soviet acceptance of comprehensive verification measures, to include extensive on-site inspections, reflects a new willingness to finalize the treaty. However, arms reduction talks in the future will be forced to address weapons systems which, given the current state of intelligence collection technology, are much more difficult to monitor. Such systems include road and rail based mobile intercontinental ballistic missiles, ground and sea-launched cruise missiles, and chemical and biological weaponry. From a verification perspective, it is much easier to monitor a system which has been totally eliminated. Unless these hard-to-verify systems are eliminated in their entirety, as was the case with all INF related weapons, they will pose an extremely difficult verification problem.

The solution to such a problem would require on-site intrusive verification measures never previously adapted. A renewed Soviet reluctance to allow such measures to be utilized would revalidate the author's claim that political preference was responsible for the prevention of negotiated agreements. But a continued Soviet desire to subordinate political priorities for the sake of arms control and accept these measures could allow for future treaty validation, with adequate verification principles left intact.

The book is extremely detailed in its presentation of the technical data associated with verification monitoring systems. In addition, the author's presentation of the political role for verification is laden with complex conceptional analysis. Even the introductory and concluding chapters, while summary, are still characterized by highly technical and intricate assessments. The outcome is a work which is superbly researched but so detailed and technically focused that the lay reader will have serious problems in digesting the voluminous information.

This work will serve as an exceptional data base for those concerned with technical verification measures and related political problems for the arms control process. However, others seeking a conclusive explanation of the verification process must beware of the difference between capabilities and a willingness to allow these capabilities to be utilized.

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Bibliography on Soviet Intelligence and Security Services by Raymond G. Rocca and John J. Dziak, Boulder, Colo.: Westview Press, 1985, 203 pages, $21.50.

This text serves as a handy reference guide to the researcher interested in Soviet intelligence and security services open-source literature. Both authors of this bibliography have extensive professional credentials. Rocca served as a career CIA officer and Dziak was a senior official with the Defense Intelligence Agency.

Over 500 books, articles, Congressional Reports and other documents have been listed in five categories to help the researcher. The five categories are: Selected Bibliographies and other reference works; Russian/Soviet Accounts; Defector/Firsthand Accounts; Secondary Accounts; and Congressional and other government documents.

Of interest is the fact that each entry has a short one or two-paragraph evaluation as to the accuracy or objectivity of the work referenced. Books referenced include well-known titles such as Allen Dulles' **The Craft of Intelligence**, Harry Rositzke's **The KGB: The Eyes of Russia**, and John Barron's **KGB: The Secret Work of Soviet Secret Agents** and **KGB Today: The Hidden Hand**. A number of controversial articles are also referenced.

A glossary of abbreviations and terms is very helpful, giving acronyms' full titles in both Russian and English. The top leadership positions of the KGB and GRU since the October 1917 Revolution through 1985 are listed with the names of the men who filled them. A time-line developmental chart of how the Cheka and NKVD evolved into the present day KGB is also provided.

Overall, this book is a useful reference tool. Every MI soldier who has an interest in KGB operations and methods should use **Bibliography on Soviet Intelligence and Security Services** as a basis of initial examination of available open-source material.

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501st
Military Intelligence Battalion

GO FOR IT

The blue and green refer to the air and ground assets of the battalion. They further allude to the close relationship with the infantry (blue) and armor (green) units of the division. The red and yellow flash connotes the prominent role of electronic signals intelligence in modern warfare. The cavalry sabre, flash and quartered field collectively suggest the blending of the traditional with the latest modern developments in intelligence, reconnaissance, security and electronic warfare capabilities within the military intelligence battalion.

The 501st Military Intelligence Battalion traces its history to October 13, 1950, when it was constituted as Headquarters and Headquarters Detachment, 301st Communication Reconnaissance Battalion. It was activated on October 20, 1950, at Camp Pickett, Va.

In 1955, the unit was reorganized and redesignated as Headquarters and Headquarters Company, 301st Communication Reconnaissance Battalion. The 356th Communication Reconnaissance Company (organized in 1946) and the 329th Communication Reconnaissance Company (organized in 1943) were concurrently reorganized and redesignated as A and B Companies.

On July 1, 1956, the 301st Communication Reconnaissance Battalion was redesignated as the 301st Army Security Agency Battalion. The unit was inactivated October 15, 1957, in Korea. The Headquarters and Headquarters Company, 301st Army Security Agency Battalion was activated December 15, 1965, at Fort Bragg,

N.C., and inactivated on June 18, 1971.

Companies A and B were redesignated in 1975 as the 356th and 329th Army Security Agency Companies respectively.

Headquarters and Headquarters Company was redesignated on September 16, 1980, as Headquarters and Operations Company, 501st Military Intelligence Battalion, assigned to the 1st Armored Division and activated in Germany. The 202d Army Security Agency Company and the 501st Military Intelligence Detachment were concurrently redesignated as Companies A and B, 501st Military Intelligence Battalion. Company C was constituted and activated.

The 202d Army Security Agency Company was constituted in 1967 in the Regular Army. It was activated in July of that year at Fort Hood, Texas, and inactivated in April 1971. The unit was then activated in July 1974 in Germany.

The 501st Military Intelligence Detachment was organized in 1943 as

the 2678th Headquarters Company, Counter Intelligence Corps (Provisional) at Algiers, Algeria. It was disbanded in April 1944 and personnel were transferred to the 6779th Counter Intelligence Corps Detachment (Provisional). The 6779th was disbanded in August 1944 and personnel were transferred to the 501st Counter Intelligence Corps Detachment which was constituted on July 12, 1944. The 501st was disbanded in June 1945 at Chianni, Italy. In April 1951 it was reconstituted and allotted to the Regular Army. It was activated in May 1951 at Fort Holabird, Md. The unit was reorganized and redesignated in January 1958 as the 501st Military Intelligence Detachment. It was inactivated in March 1971 at Fort Hood, Texas.

The battalion participated extensively in World War II and the Korean War. It has received the meritorious unit commendation (Army) and the Republic of Korea Presidential Citation.